

GOMOS Level 2 Daily Report

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This report presents the daily analysis on parameters extracted from GOMOS level 2 data (GOM_NL__2P).
 It is intended to monitor some important parameters that will impact the quality of these products.
 A list of level 2 products (and content) that have arrived during the reporting day to the PCF is also given.

Item	Value
Time of report generation	19APR2013 13:07:22
Data source version	GOMOS/6.01
Start time of products	12-04-2003 (12APR2003 00:00:00)
Stop time of products	13-04-2003 (13APR2003 00:00:00)
Store outputs in DB	Yes
Nb of level 2 prods	317
Nb of prods with errors	0

2. Summary of processed GOM_NL__2P products.

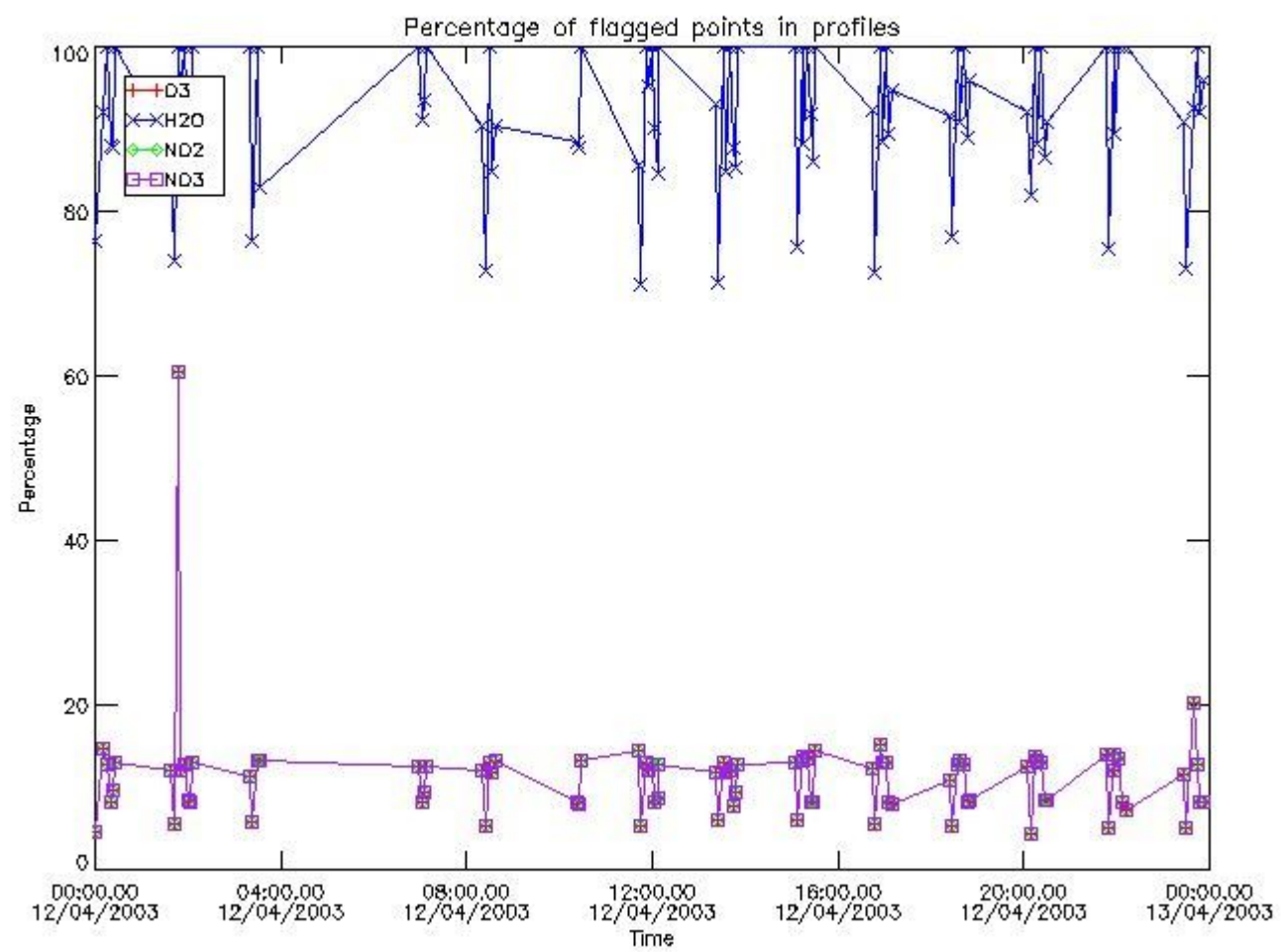
Nr	Filename	UTC Start time	Limb	Duration	Star Id	Star Name	Star Mag	Star Temp	Nb Meas	Orbit	Prod. error
1	GOM_NL__2PRFIN20030412_000047_000001112015_00259_05824_6742.N1	12-APR-2003 00:00:47	Dark	111.00	11	53Alp Aql	0.76500	8000.0	222	5824	No
2	GOM_NL__2PRFIN20030412_001015_000000382015_00259_05824_6743.N1	12-APR-2003 00:10:15	Dark	38.000	31	Alp Gru	1.7340	15200.	76	5824	No
3	GOM_NL__2PRFIN20030412_001501_000000402015_00260_05825_6716.N1	12-APR-2003 00:15:01	Dark	40.000	45	Alp Pav	1.9400	26000.	80	5825	No
4	GOM_NL__2PRFIN20030412_001919_000000632015_00260_05825_6717.N1	12-APR-2003 00:19:19	Dark	62.500	38	20Eps Sgr	1.8360	11000.	125	5825	No
5	GOM_NL__2PRFIN20030412_002224_000000542015_00260_05825_6718.N1	12-APR-2003 00:22:24	Dark	53.500	40	The Sco	1.8590	7100.0	107	5825	No
6	GOM_NL__2PRFIN20030412_002431_000000392015_00260_05825_6719.N1	12-APR-2003 00:24:31	Dark	39.000	134	Bet TrA	2.8100	6600.0	78	5825	No
7	GOM_NL__2PRFIN20030412_002730_000000742015_00260_05825_6720.N1	12-APR-2003 00:27:30	Straylight	73.500	75	26Eps Sco	2.2910	4250.0	147	5825	No
8	GOM_NL__2PRFIN20030412_003208_000001042015_00260_05825_6721.N1	12-APR-2003 00:32:08	Straylight	104.00	16	21Alp Sco	1.0200	3000.0	208	5825	No
9	GOM_NL__2PRFIN20030412_003551_000000912015_00260_05825_6722.N1	12-APR-2003 00:35:51	Twilight	90.500	80	7Del Sco	2.3160	30000.	181	5825	No
10	GOM_NL__2PRFIN20030412_003928_000000432015_00260_05825_6723.N1	12-APR-2003 00:39:28	Twilight	43.000	106	9Bet Crv	2.6480	5600.0	86	5825	No
11	GOM_NL__2PRFIN20030412_004119_000000402015_00260_05825_6724.N1	12-APR-2003 00:41:19	Bright	39.500	100	4Gam Crv	2.5800	13100.	79	5825	No
12	GOM_NL__2PRFIN20030412_004248_000000472015_00260_05825_6725.N1	12-APR-2003 00:42:48	Bright	46.500	15	67Alp Vir	0.97600	28000.	93	5825	No
13	GOM_NL__2PRFIN20030412_004553_000000402015_00260_05825_6726.N1	12-APR-2003 00:45:53	Bright	39.500	121	29Gam Vir	2.7400	7200.0	79	5825	No
14	GOM_NL__2PRFIN20030412_005035_000000362015_00260_05825_6727.N1	12-APR-2003 00:50:35	Bright	36.000	62	94Bet Leo	2.1360	9700.0	72	5825	No
15	GOM_NL__2PRFIN20030412_005226_000000362015_00260_05825_6728.N1	12-APR-2003 00:52:26	Bright	35.500	96	68Del Leo	2.5600	9300.0	71	5825	No
16	GOM_NL__2PRFIN20030412_005457_000000632015_00260_05825_6729.N1	12-APR-2003 00:54:57	Bright	62.500	3	16Alp Boo	-0.050000	4250.0	125	5825	No
17	GOM_NL__2PRFIN20030412_005806_000000392015_00260_05825_6730.N1	12-APR-2003 00:58:06	Bright	39.000	152	12Alp2CVn	2.8900	11000.	78	5825	No
18	GOM_NL__2PRFIN20030412_010143_000000352015_00260_05825_6731.N1	12-APR-2003 01:01:43	Bright	34.500	87	64Gam UMa	2.4330	11000.	69	5825	No
19	GOM_NL__2PRFIN20030412_010303_000000372015_00260_05825_6732.N1	12-APR-2003 01:03:03	Bright	37.000	32	77Eps UMa	1.7630	11000.	74	5825	No
20	GOM_NL__2PRFIN20030412_010929_000000392015_00260_05825_6733.N1	12-APR-2003 01:09:29	Bright	39.000	60	7Bet UMi	2.0810	3950.0	78	5825	No
21	GOM_NL__2PRFIN20030412_011201_000000372015_00260_05825_6734.N1	12-APR-2003 01:12:01	Bright	36.500	49	1Alp UMi	1.9900	6300.0	73	5825	No
22	GOM_NL__2PRFIN20030412_011559_000000612015_00260_05825_6735.N1	12-APR-2003 01:15:59	Bright	60.500	130	23Bet Dra	2.7990	5800.0	121	5825	No
23	GOM_NL__2PRFIN20030412_012015_000000352015_00260_05825_6736.N1	12-APR-2003 01:20:15	Bright	34.500	74	11Bet Cas	2.2680	6600.0	69	5825	No
24	GOM_NL__2PRFIN20030412_012544_000001102015_00260_05825_6737.N1	12-APR-2003 01:25:44	Bright	110.00	5	3Alp Lyr	0.033000	11000.	220	5825	No
25	GOM_NL__2PRFIN20030412_012849_000000492015_00260_05825_6738.N1	12-APR-2003 01:28:49	Bright	48.500	92	53Eps Cyg	2.5000	4500.0	97	5825	No
26	GOM_NL__2PRFIN20030412_013555_000000542015_00260_05825_6739.N1	12-APR-2003 01:35:55	Twilight	53.500	61	8Eps Peg	2.1000	3900.0	107	5825	No
27	GOM_NL__2PRFIN20030412_013824_000000422015_00260_05825_6740.N1	12-APR-2003 01:38:24	Dark	42.000	162	34Alp Aqr	2.9440	5350.0	84	5825	No
28	GOM_NL__2PRFIN20030412_014125_000000912015_00260_05825_6741.N1	12-APR-2003 01:41:25	Dark	90.500	11	53Alp Aql	0.76500	8000.0	181	5825	No
29	GOM_NL__2PRFIN20030412_014841_000000392015_00260_05825_6742.N1	12-APR-2003 01:48:41	Dark	38.500	172	Gam Gru	3.0030	13100.	77	5825	No
30	GOM_NL__2PRFIN20030412_015051_000000422015_00260_05825_6743.N1	12-APR-2003 01:50:51	Dark	42.000	31	Alp Gru	1.7340	15200.	84	5825	No
31	GOM_NL__2PRFIN20030412_015537_000000402015_00261_05826_6716.N1	12-APR-2003 01:55:37	Dark	40.000	45	Alp Pav	1.9400	26000.	80	5826	No
32	GOM_NL__2PRFIN20030412_015956_000000612015_00261_05826_6717.N1	12-APR-2003 01:59:56	Dark	60.500	38	20Eps Sgr	1.8360	11000.	121	5826	No
33	GOM_NL__2PRFIN20030412_020301_000000632015_00261_05826_6718.N1	12-APR-2003 02:03:01	Dark	63.000	40	The Sco	1.8590	7100.0	126	5826	No
34	GOM_NL__2PRFIN20030412_020507_000000402015_00261_05826_6719.N1	12-APR-2003 02:05:07	Dark	39.500	134	Bet TrA	2.8100	6600.0	79	5826	No
35	GOM_NL__2PRFIN20030412_020807_000000762015_00261_05826_6720.N1	12-APR-2003 02:08:07	Straylight	76.000	75	26Eps Sco	2.2910	4250.0	152	5826	No
36	GOM_NL__2PRFIN20030412_021244_000001132015_00261_05826_6721.N1	12-APR-2003 02:12:44	Straylight	113.00	16	21Alp Sco	1.0200	3000.0	226	5826	No
37	GOM_NL__2PRFIN20030412_021628_000000972015_00261_05826_6722.N1	12-APR-2003 02:16:28	Twilight	97.000	80	7Del Sco	2.3160	30000.	194	5826	No
38	GOM_NL__2PRFIN20030412_022004_000000442015_00261_05826_6723.N1	12-APR-2003 02:20:04	Twilight	44.000	106	9Bet Crv	2.6480	5600.0	88	5826	No
39	GOM_NL__2PRFIN20030412_022155_000000402015_00261_05826_6724.N1	12-APR-2003 02:21:55	Bright	39.500	100	4Gam Crv	2.5800	13100.	79	5826	No
40	GOM_NL__2PRFIN20030412_022324_000000472015_00261_05826_6725.N1	12-APR-2003 02:23:24	Bright	46.500	15	67Alp Vir	0.97600	28000.	93	5826	No
41	GOM_NL__2PRFIN20030412_022629_000000402015_00261_05826_6726.N1	12-APR-2003 02:26:29	Bright	40.000	121	29Gam Vir	2.7400	7200.0	80	5826	No
42	GOM_NL__2PRFIN20030412_023111_000000372015_00261_05826_6727.N1	12-APR-2003 02:31:11	Bright	36.500	62	94Bet Leo	2.1360	9700.0	73	5826	No

279	GOM_NL__2PRFIN20030412_213247_000001062015_00272_05837_6764.N1	12-APR-2003 21:32:47	Bright	105.50	5	3Alp Lyr	0.033000	11000.	211	5837	No
280	GOM_NL__2PRFIN20030412_213601_000000522015_00272_05837_6765.N1	12-APR-2003 21:36:01	Bright	51.500	92	53Eps Cyg	2.5000	4500.0	103	5837	No
281	GOM_NL__2PRFIN20030412_214311_000000472015_00272_05837_6766.N1	12-APR-2003 21:43:11	Twilight	47.000	61	8Eps Peg	2.1000	3900.0	94	5837	No
282	GOM_NL__2PRFIN20030412_214540_000000402015_00272_05837_6767.N1	12-APR-2003 21:45:40	Dark	40.000	162	34Alp Aqr	2.9440	5350.0	80	5837	No
283	GOM_NL__2PRFIN20030412_214855_000001002015_00272_05837_6768.N1	12-APR-2003 21:48:55	Dark	100.00	11	53Alp Aql	0.76500	8000.0	200	5837	No
284	GOM_NL__2PRFIN20030412_215557_000000402015_00272_05837_6769.N1	12-APR-2003 21:55:57	Dark	40.000	172	Gam Gru	3.0030	13100.	80	5837	No
285	GOM_NL__2PRFIN20030412_215806_000000432015_00272_05837_6770.N1	12-APR-2003 21:58:06	Dark	42.500	31	Alp Gru	1.7340	15200.	85	5837	No
286	GOM_NL__2PRFIN20030412_220254_000000422015_00273_05838_6742.N1	12-APR-2003 22:02:54	Dark	41.500	45	Alp Pav	1.9400	26000.	83	5838	No
287	GOM_NL__2PRFIN20030412_220726_000000622015_00273_05838_6743.N1	12-APR-2003 22:07:26	Dark	62.000	38	20Eps Sgr	1.8360	11000.	124	5838	No
288	GOM_NL__2PRFIN20030412_221131_000000702015_00273_05838_6744.N1	12-APR-2003 22:11:31	Dark	69.500	25	35Lam Sco	1.6200	28000.	139	5838	No
289	GOM_NL__2PRFIN20030412_221452_000000462015_00273_05838_6745.N1	12-APR-2003 22:14:52	Straylight	45.500	4	Alp1Cen	-0.010000	5800.0	91	5838	No
290	GOM_NL__2PRFIN20030412_221934_000000442015_00273_05838_6746.N1	12-APR-2003 22:19:34	Straylight	44.000	81	Eta Cen	2.3560	28000.	88	5838	No
291	GOM_NL__2PRFIN20030412_222200_000000492015_00273_05838_6747.N1	12-APR-2003 22:22:00	Straylight	48.500	54	5The Cen	2.0550	4500.0	97	5838	No
292	GOM_NL__2PRFIN20030412_222348_000000942015_00273_05838_6748.N1	12-APR-2003 22:23:48	Tw_i_and_stray	94.000	80	7Del Sco	2.3160	30000.	188	5838	No
293	GOM_NL__2PRFIN20030412_222652_000000462015_00273_05838_6749.N1	12-APR-2003 22:26:52	Tw_i_and_stray	46.000	169	46Gam Hya	2.9910	4700.0	92	5838	No
294	GOM_NL__2PRFIN20030412_222830_000000642015_00273_05838_6750.N1	12-APR-2003 22:28:30	Bright	63.500	122	9Alp2Lib	2.7470	9700.0	127	5838	No
295	GOM_NL__2PRFIN20030412_223036_000000482015_00273_05838_6751.N1	12-APR-2003 22:30:36	Bright	47.500	15	67Alp Vir	0.97600	28000.	95	5838	No
296	GOM_NL__2PRFIN20030412_223341_000000392015_00273_05838_6752.N1	12-APR-2003 22:33:41	Bright	39.000	121	29Gam Vir	2.7400	7200.0	78	5838	No
297	GOM_NL__2PRFIN20030412_223736_000000412015_00273_05838_6753.N1	12-APR-2003 22:37:36	Bright	41.000	138	47Eps Vir	2.8280	4700.0	82	5838	No
298	GOM_NL__2PRFIN20030412_224016_000000352015_00273_05838_6754.N1	12-APR-2003 22:40:16	Bright	34.500	96	68Del Leo	2.5600	9300.0	69	5838	No
299	GOM_NL__2PRFIN20030412_224233_000000562015_00273_05838_6755.N1	12-APR-2003 22:42:33	Bright	56.000	3	16Alp Boo	-0.050000	4250.0	112	5838	No
300	GOM_NL__2PRFIN20030412_224549_000000392015_00273_05838_6756.N1	12-APR-2003 22:45:49	Bright	39.000	152	12Alp2CVn	2.8900	11000.	78	5838	No
301	GOM_NL__2PRFIN20030412_224929_000000372015_00273_05838_6757.N1	12-APR-2003 22:49:29	Bright	37.000	87	64Gam UMa	2.4330	11000.	74	5838	No
302	GOM_NL__2PRFIN20030412_225046_000000402015_00273_05838_6758.N1	12-APR-2003 22:50:46	Bright	39.500	32	77Eps UMa	1.7630	11000.	79	5838	No
303	GOM_NL__2PRFIN20030412_225311_000001152015_00273_05838_6759.N1	12-APR-2003 22:53:11	Bright	115.00	67	5Alp CrB	2.2210	11000.	230	5838	No
304	GOM_NL__2PRFIN20030412_225712_000000402015_00273_05838_6760.N1	12-APR-2003 22:57:12	Bright	39.500	60	7Bet UMi	2.0810	3950.0	79	5838	No
305	GOM_NL__2PRFIN20030412_225949_000000352015_00273_05838_6761.N1	12-APR-2003 22:59:49	Bright	35.000	49	1Alp UMi	1.9900	6300.0	70	5838	No
306	GOM_NL__2PRFIN20030412_230334_000000632015_00273_05838_6762.N1	12-APR-2003 23:03:34	Bright	62.500	130	23Bet Dra	2.7990	5800.0	125	5838	No
307	GOM_NL__2PRFIN20030412_230804_000000352015_00273_05838_6763.N1	12-APR-2003 23:08:04	Bright	35.000	74	11Bet Cas	2.2680	6600.0	70	5838	No
308	GOM_NL__2PRFIN20030412_231324_000001162015_00273_05838_6764.N1	12-APR-2003 23:13:24	Bright	116.00	5	3Alp Lyr	0.033000	11000.	232	5838	No
309	GOM_NL__2PRFIN20030412_231637_000000522015_00273_05838_6765.N1	12-APR-2003 23:16:37	Bright	51.500	92	53Eps Cyg	2.5000	4500.0	103	5838	No
310	GOM_NL__2PRFIN20030412_232348_000000492015_00273_05838_6766.N1	12-APR-2003 23:23:48	Twilight	49.000	61	8Eps Peg	2.1000	3900.0	98	5838	No
311	GOM_NL__2PRFIN20030412_232616_000000452015_00273_05838_6767.N1	12-APR-2003 23:26:16	Dark	44.500	162	34Alp Aqr	2.9440	5350.0	89	5838	No
312	GOM_NL__2PRFIN20030412_232932_000001022015_00273_05838_6768.N1	12-APR-2003 23:29:32	Dark	102.00	11	53Alp Aql	0.76500	8000.0	204	5838	No
313	GOM_NL__2PRFIN20030412_233842_000000402015_00273_05838_6769.N1	12-APR-2003 23:38:42	Dark	40.000	31	Alp Gru	1.7340	15200.	80	5838	No
314	GOM_NL__2PRFIN20030412_234331_000000402015_00274_05839_6742.N1	12-APR-2003 23:43:31	Dark	40.000	45	Alp Pav	1.9400	26000.	80	5839	No
315	GOM_NL__2PRFIN20030412_234803_000000632015_00274_05839_6743.N1	12-APR-2003 23:48:03	Dark	62.500	38	20Eps Sgr	1.8360	11000.	125	5839	No
316	GOM_NL__2PRFIN20030412_235208_000000632015_00274_05839_6744.N1	12-APR-2003 23:52:08	Dark	62.500	25	35Lam Sco	1.6200	28000.	125	5839	No
317	GOM_NL__2PRFIN20030412_235528_000000442015_00274_05839_6745.N1	12-APR-2003 23:55:28	Straylight	43.500	4	Alp1Cen	-0.010000	5800.0	87	5839	No

3. Quality information per product

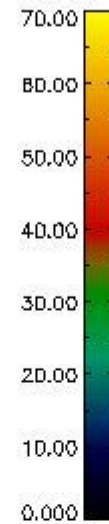
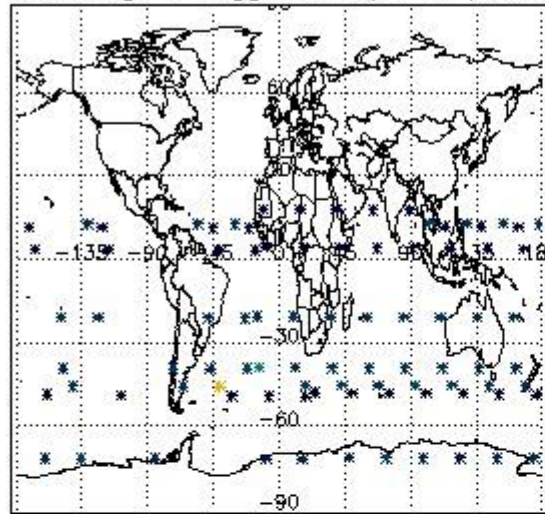
In this section it is plotted some information contained in the Quality Summary data set of the level 2 products. Only products in dark limb conditions and without errors (error flag in the MPH set to "0") are used.

3.1 Plot quality information per product (time dependant)

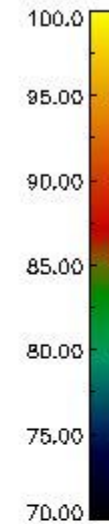
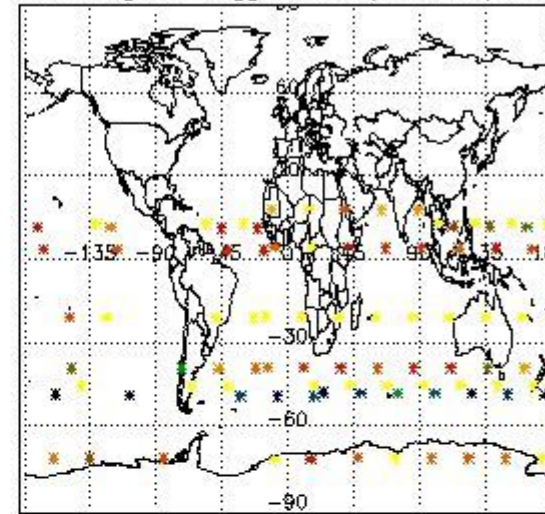


3.2 Plot quality information per product (world map)

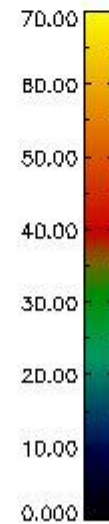
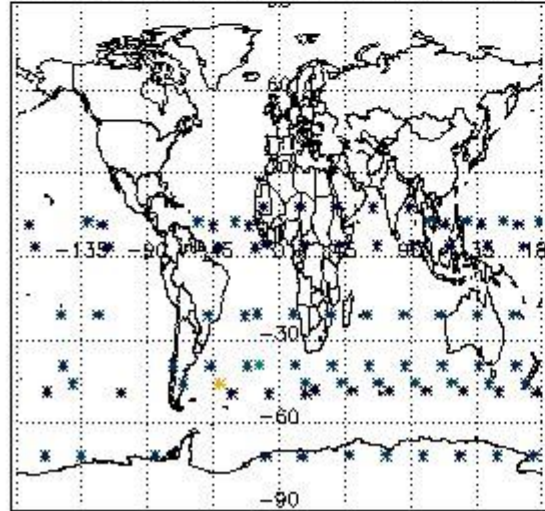
Percentage of flagged data per O3 profile



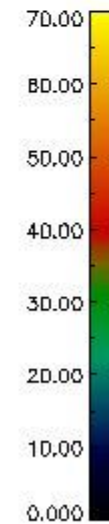
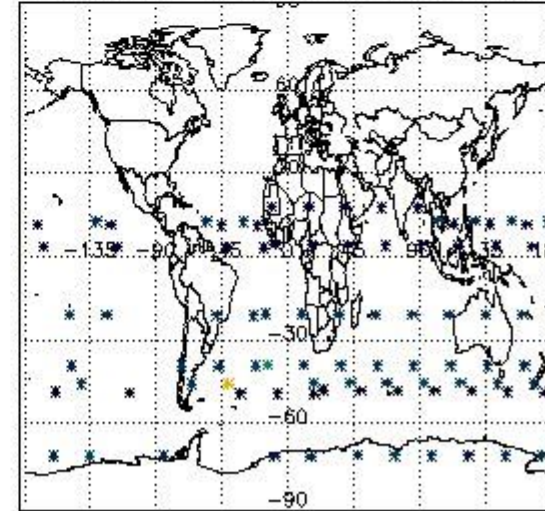
Percentage of flagged data per H2O profile



Percentage of flagged data per NO2 profile



Percentage of flagged data per NO3 profile

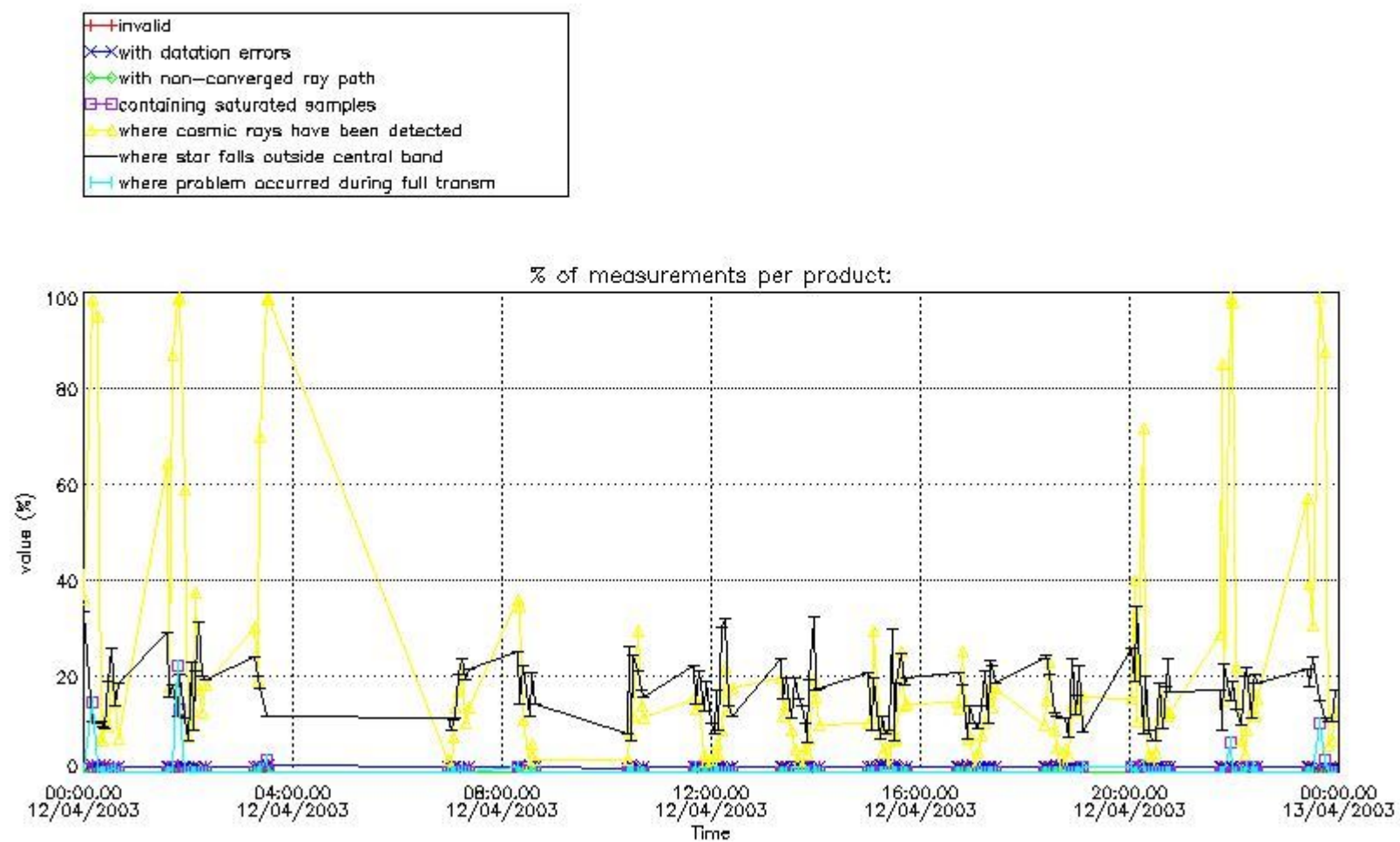


4. Level 1 quality information per product

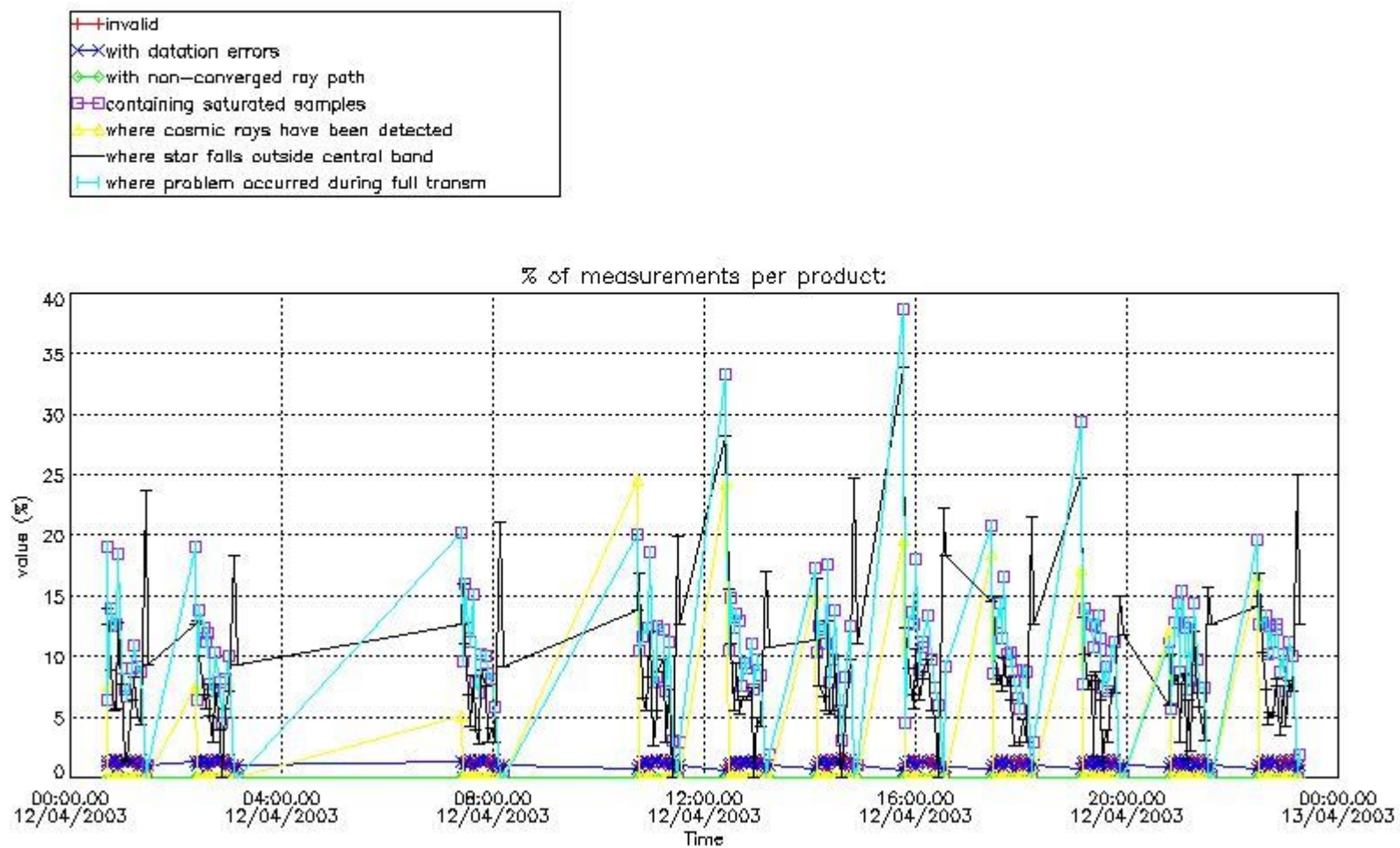
In this section it is plotted some information contained in the Quality Summary data set of the level 2 products that comes from the level 1b processing. Products without errors (error flag in the MPH set to "0") are used.

4.1 Plot quality information per product (time dependant) coming from level 1b processing

4.1.1 Plot level 1 quality information per product (time dependant): ENVISAT ASCENDING passes



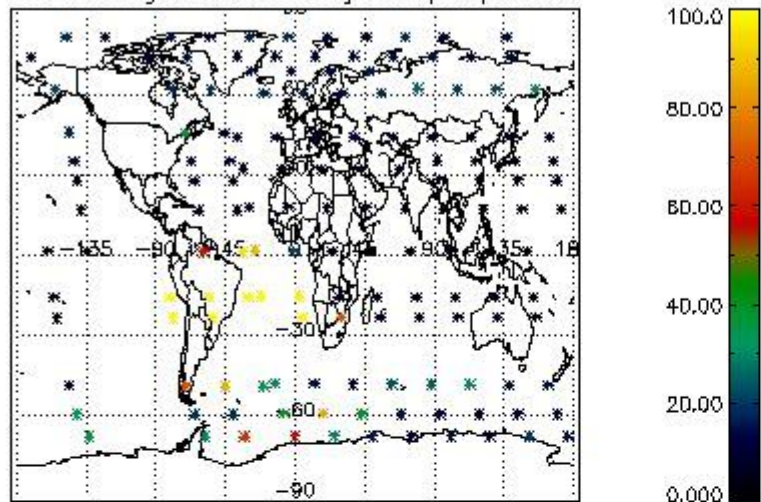
4.1.2 Plot level 1 quality information per product (time dependant): ENVI SAT DESCENDING passes



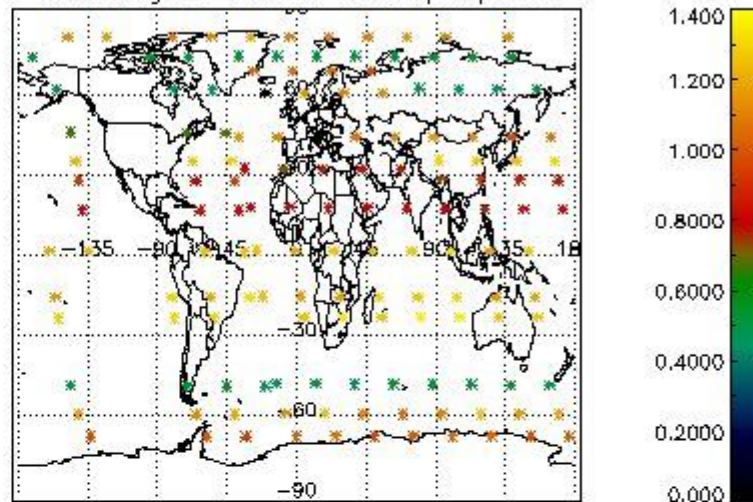
4.2 Plot quality information per product coming from level 1b processing (world map)

4.2.1 Plot level 1 quality information per product (world map): ENVISAT ASCENDING passes

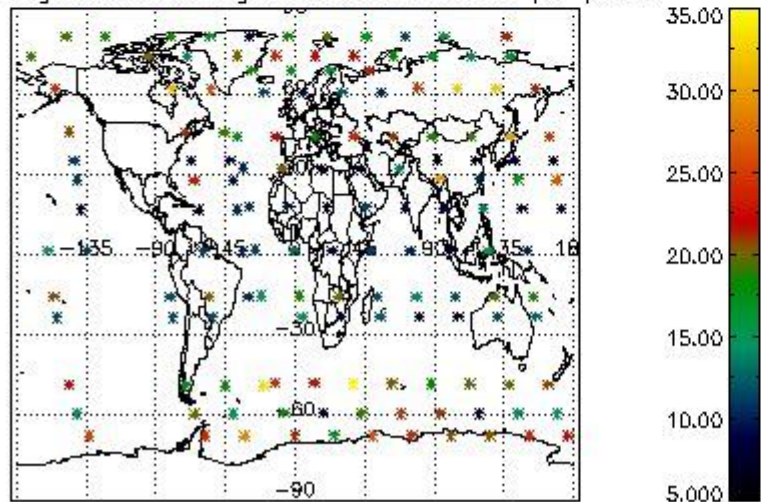
Percentage of cosmic ray hits per profile



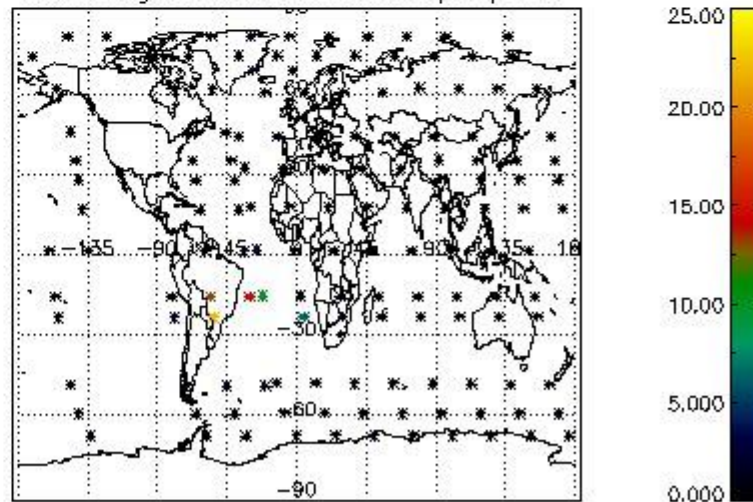
Percentage of datation errors per profile



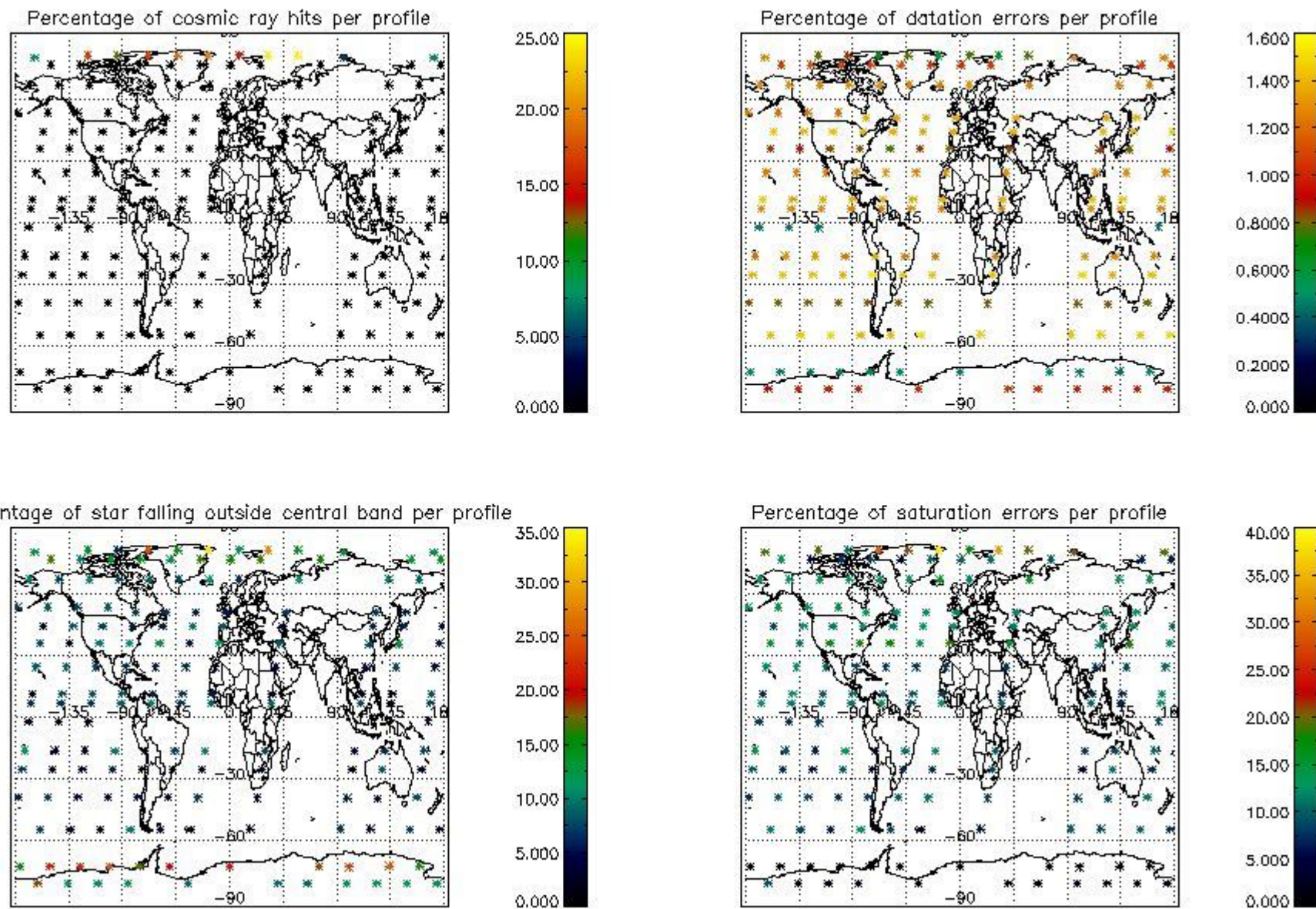
Percentage of star falling outside central band per profile



Percentage of saturation errors per profile



4.2.2 Plot level 1 quality information per product (world map): ENVISAT DESCENDING passes



5. Trace gas profiles

5.1 Ozone statistics based on quality of products

The final quality of the products can be "measured" using the STD (Standard Deviation) attached to every point profile. This information is written to the parameter GOM_NL__2P/NL_LOCAL_SPECIES_DENSITY/o3_std of the level 2 products. The table below shows the statistics for given STD ranges.

The statistics are given with respect to the overall valid production:

- Products without fatal errors: GOM_NL__2P/MPH/PRODUCT_ERR=0
- Valid point profile: GOM_NL__2P/NL_LOCAL_SPECIES_DENSITY/pcd(0)=0

The 'Criteria' is applied to valid points of dark limb products:

- Products in dark limb illumination condition: GOM_NL__2P/NL_SUMMARY_QUALITY/obs_ill_cond=0
- Products without fatal errors: GOM_NL__2P/MPH/PRODUCT_ERR=0
- Valid point profile: GOM_NL__2P/NL_LOCAL_SPECIES_DENSITY/pcd(0)=0

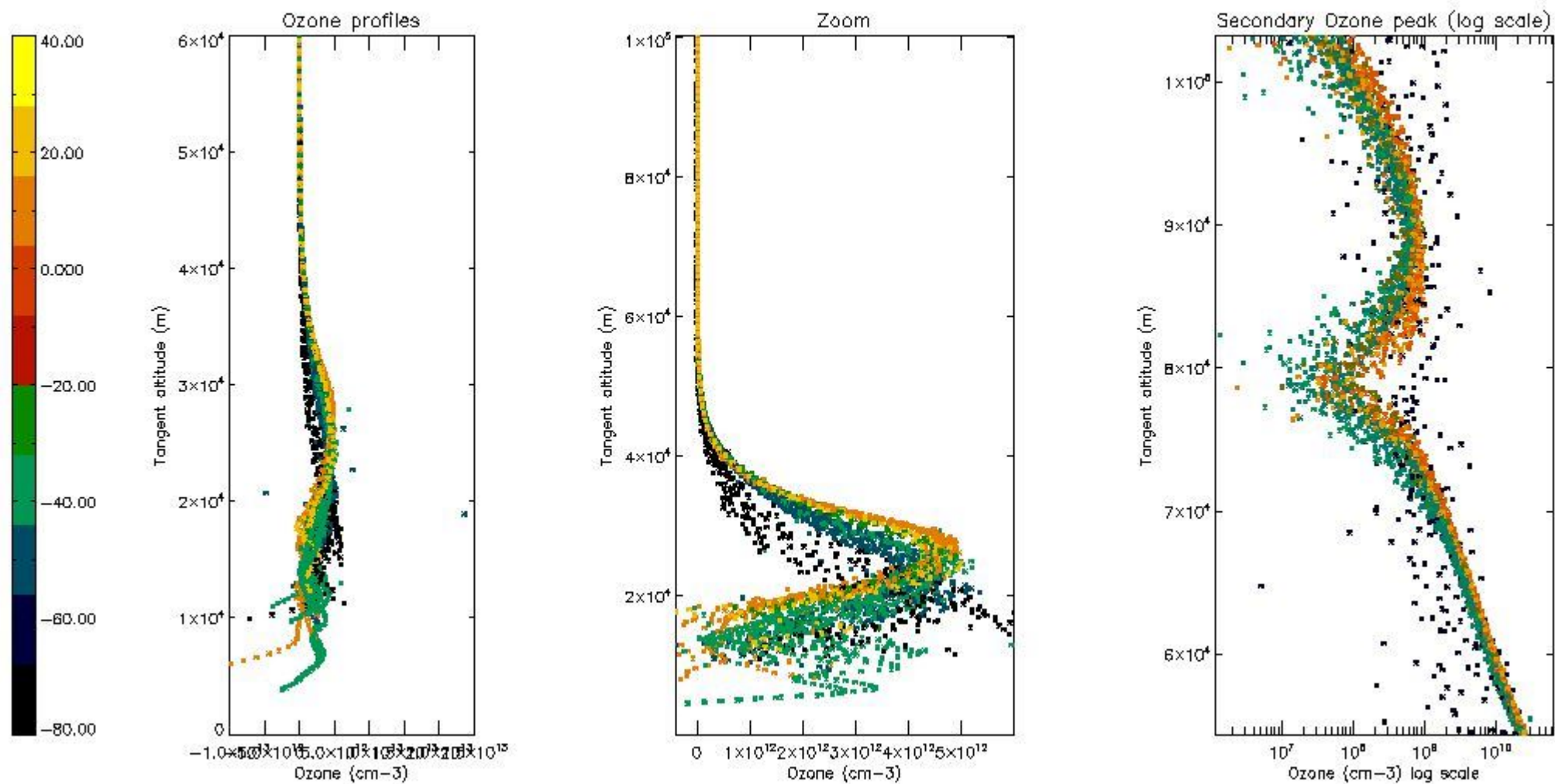
So, the table below shows the percentage of dark limb and valid observations for each criteria with respect to the overall valid daily observations.

Criteria	% of total production
All STD	28
STD < 20	19

STD < 10	16
STD < 5	13

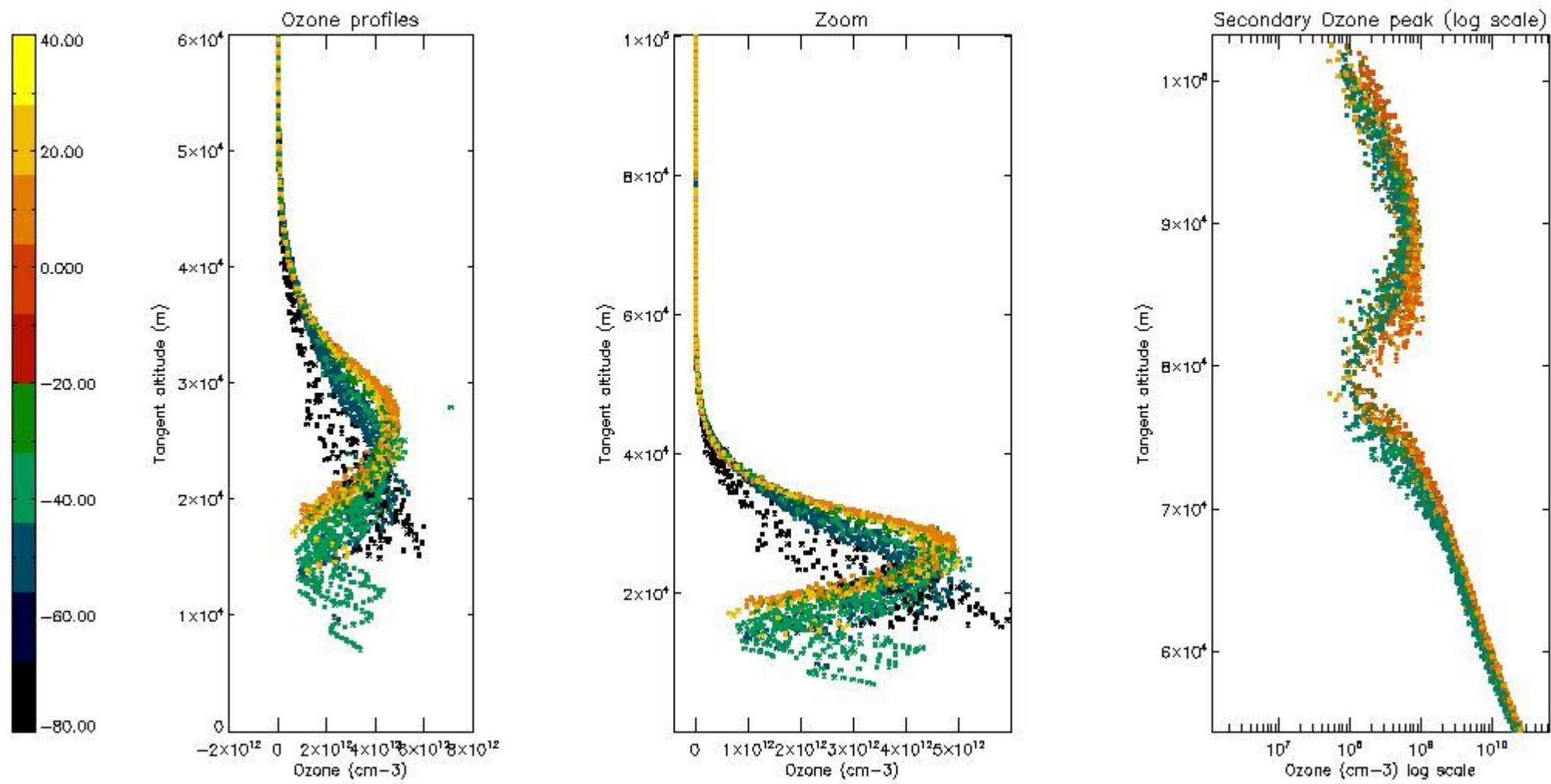
5.2 Plot ozone profiles for all STD (dark without errors)

The colorbar represents the latitude.



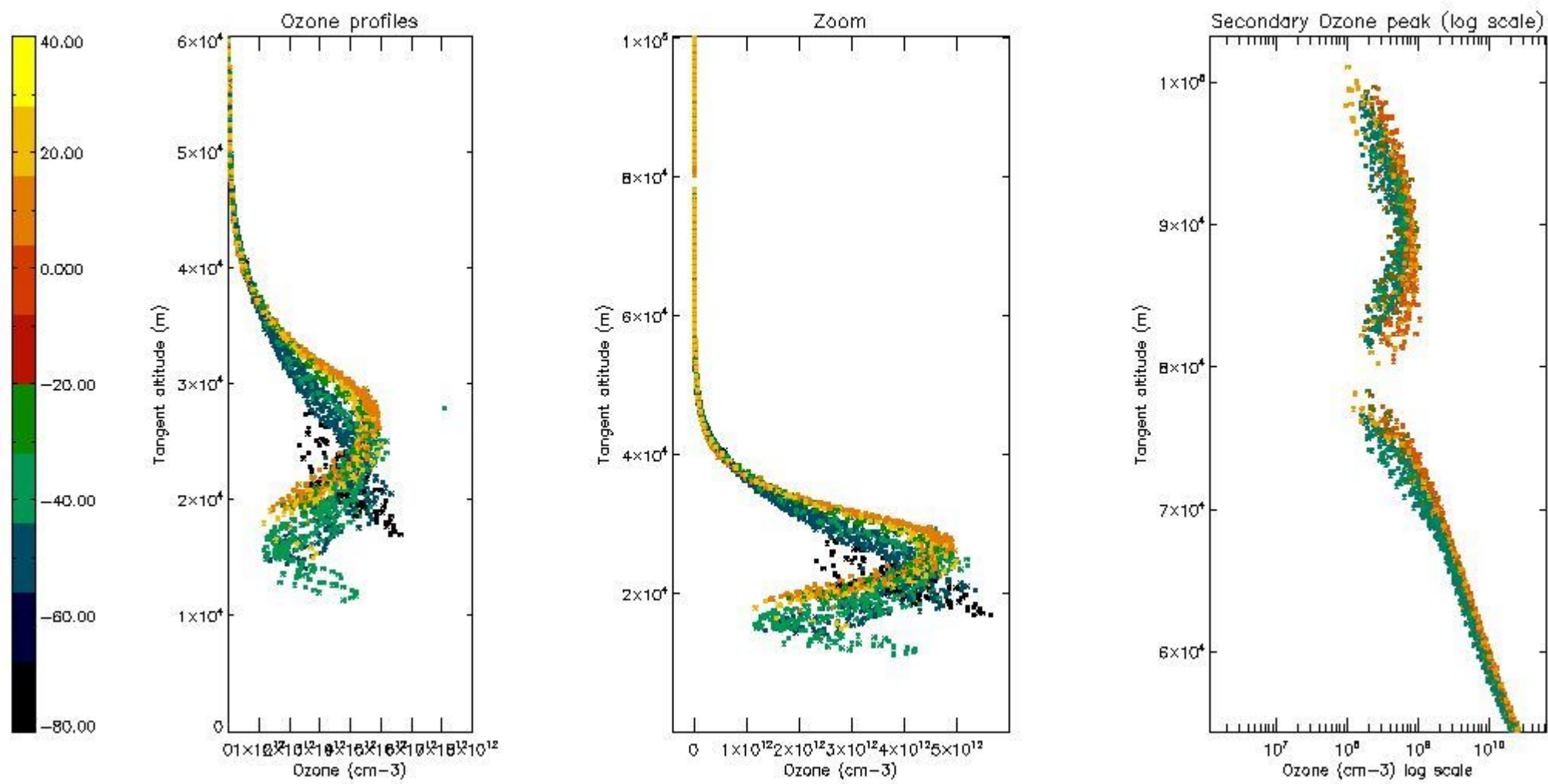
5.3 Plot ozone profiles where STD < 20% (dark without errors)

The colorbar represents the latitude.



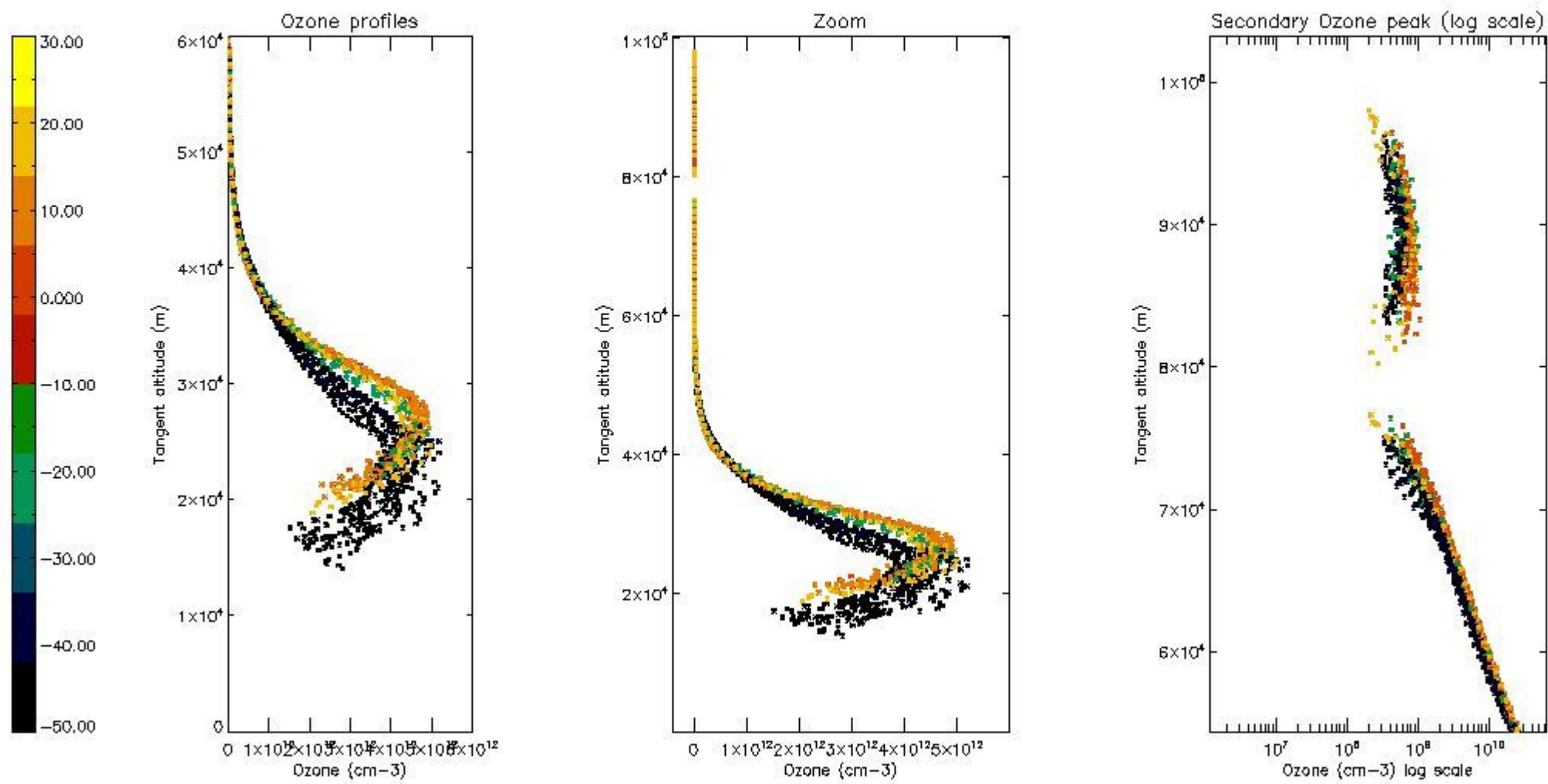
5.4 Plot ozone profiles where $STD < 10\%$ (dark without errors)

The colorbar represents the latitude.



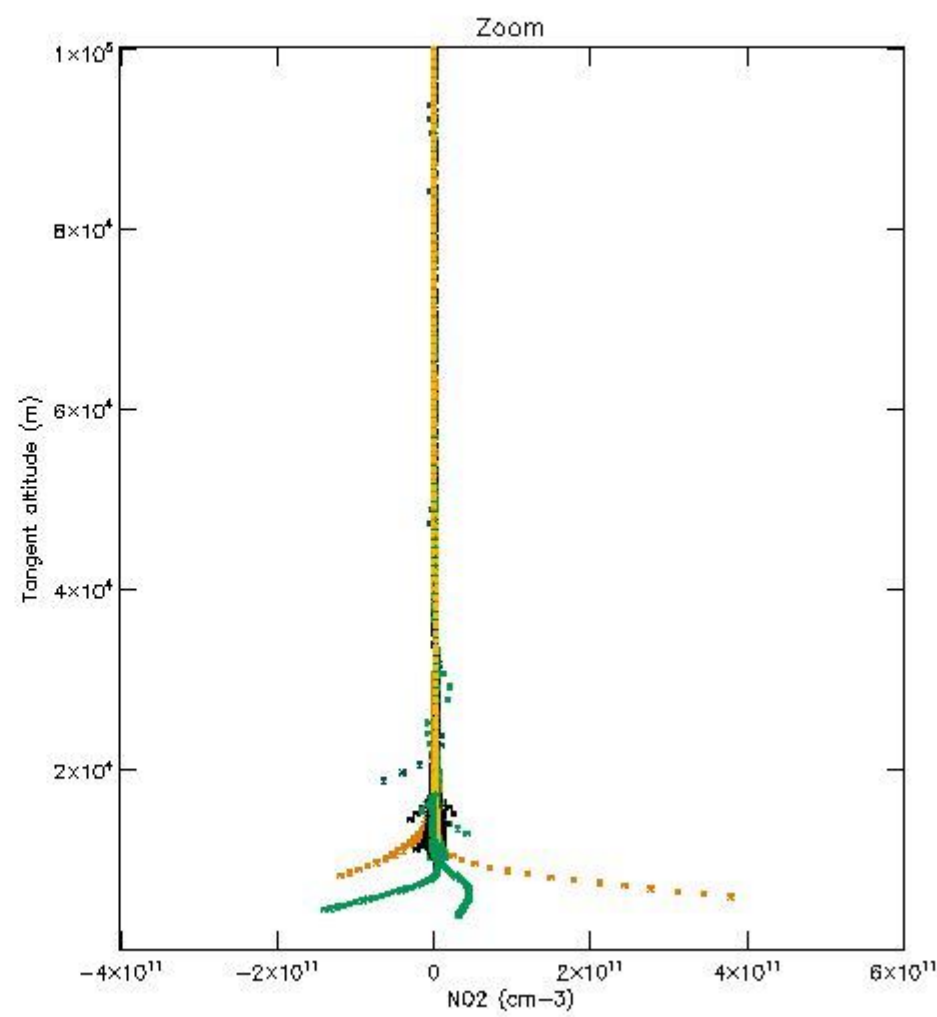
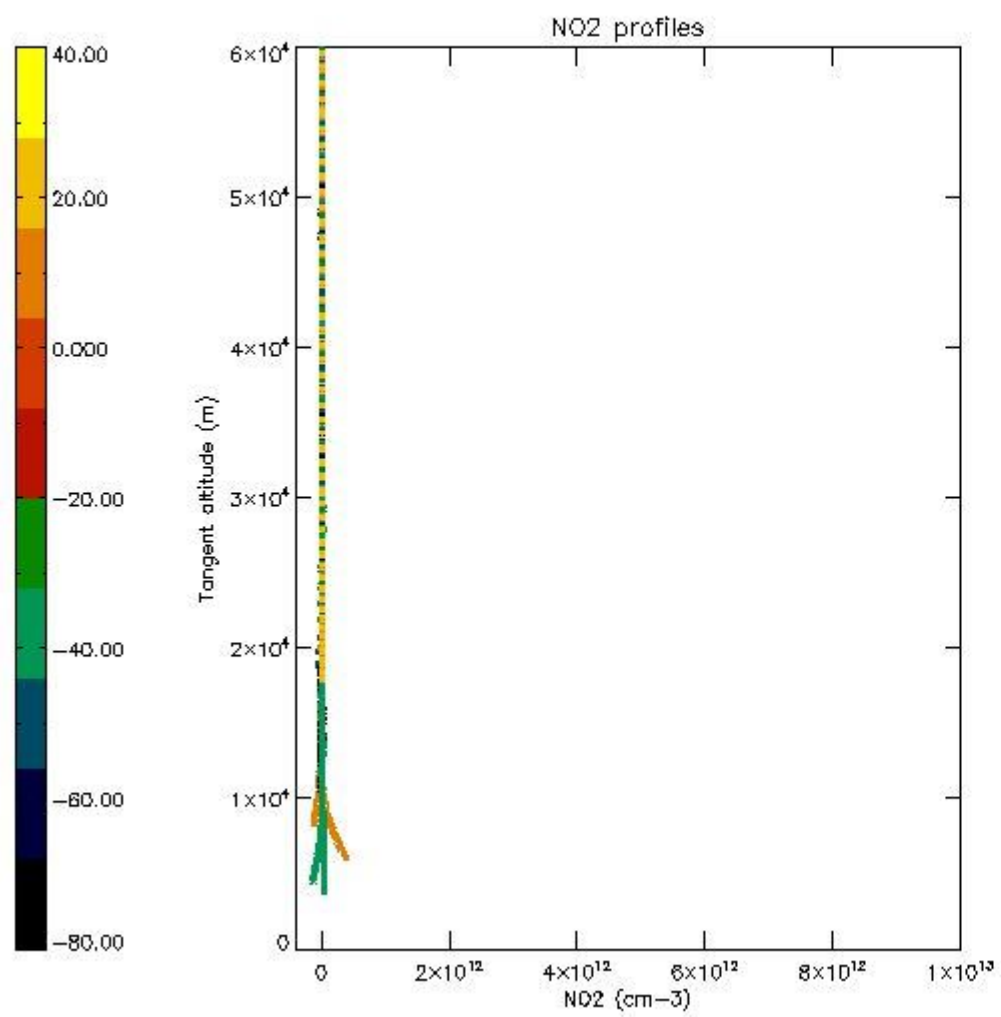
5.5 Plot ozone profiles where STD < 5% (dark without errors)

The colorbar represents the latitude.



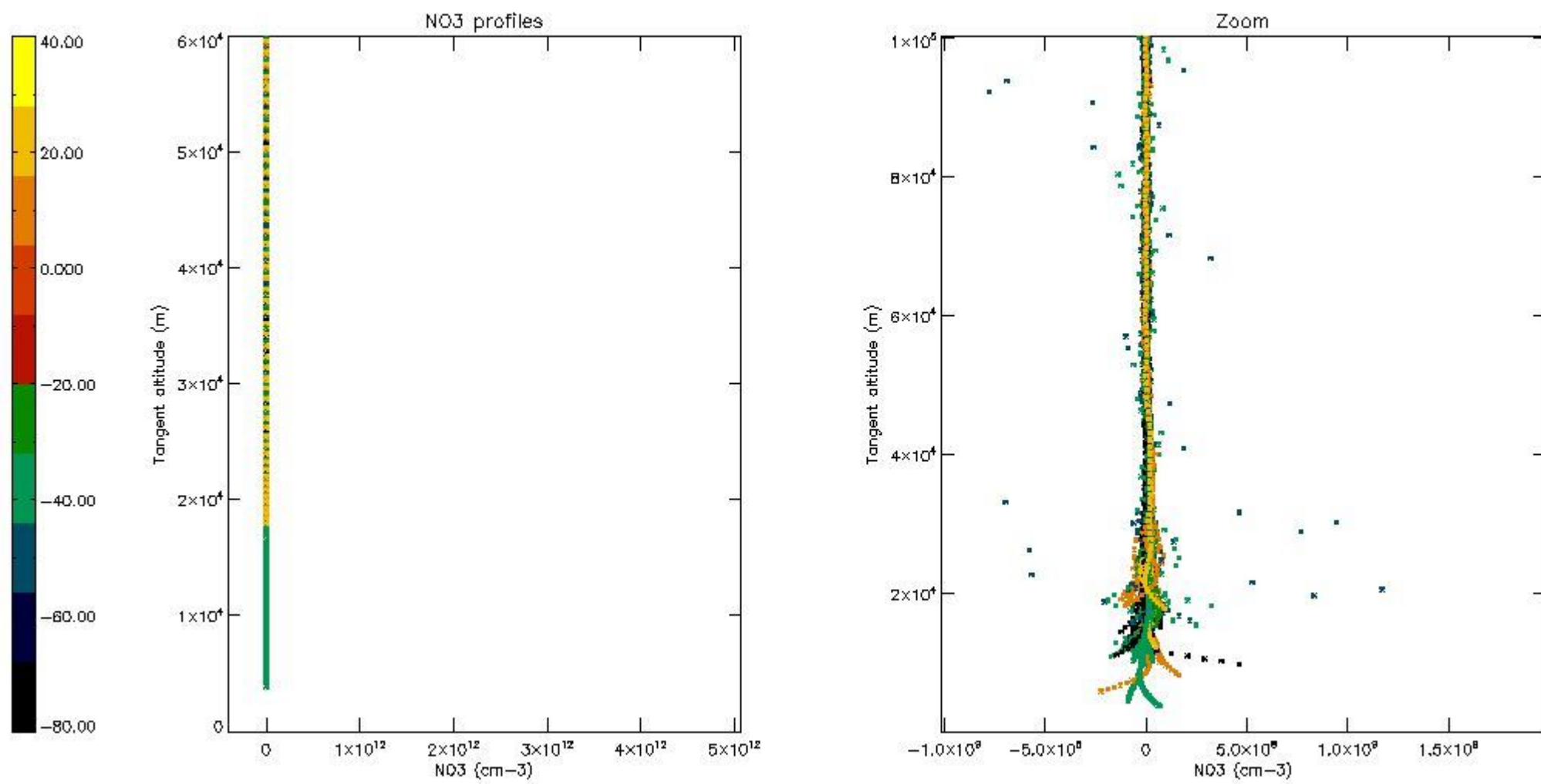
5.6 Plot NO₂ profiles for all STD (dark without errors)

The colorbar represents the latitude.



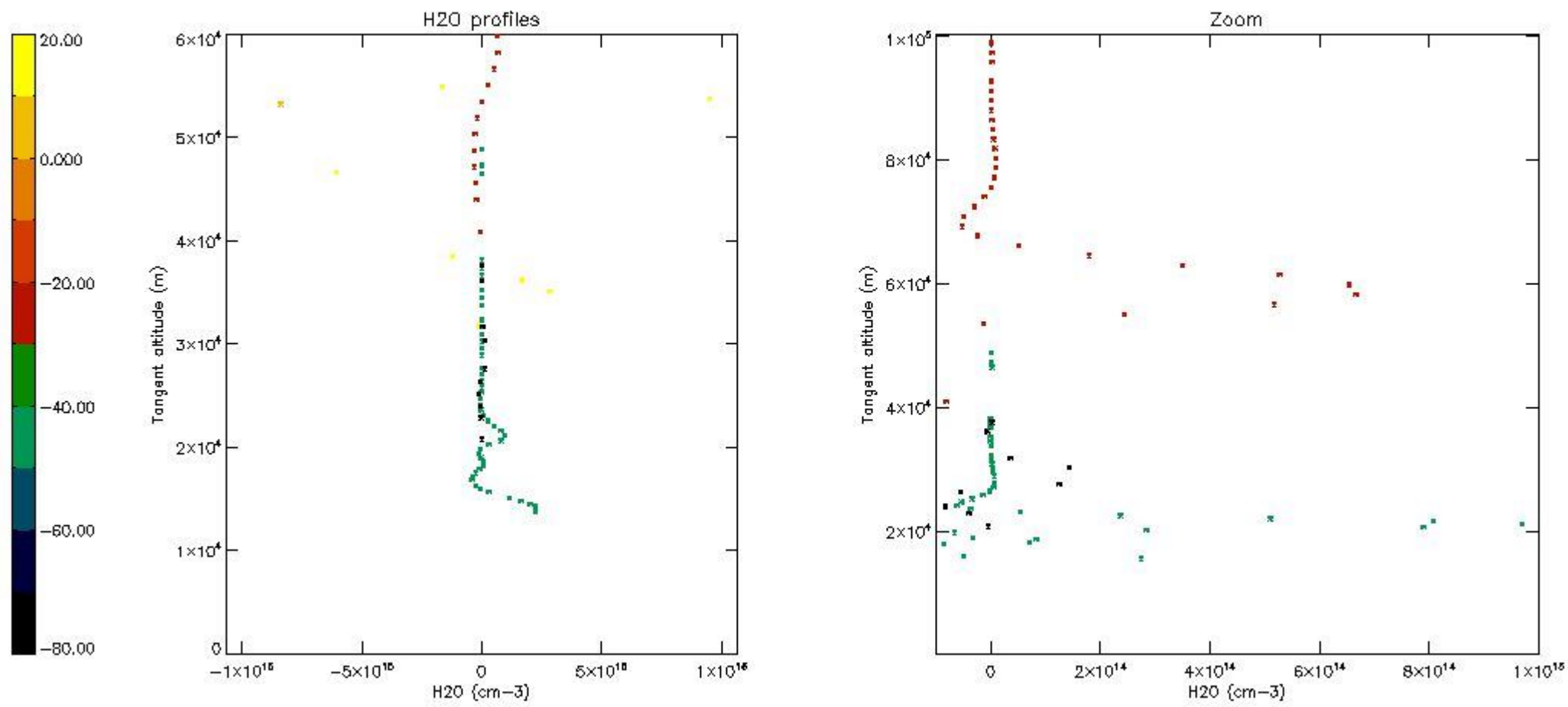
5.7 Plot NO3 profiles for all STD (dark without errors)

The colorbar represents the latitude.



5.8 Plot H2O profiles for all STD (only for occultations of stars 1,2,3,4,13,14,16,26,63 dark without errors)

The colorbar represents the latitude.



6. Auxiliary Data Files used for the production reported in section 2

The number reported in the third column indicates since which file (see list in section 2) the corresponding auxiliary file has been used. The fourth column is the date of those product files.

Type	Auxiliary Filename	Used since product	Used since product date
INST_PHYS_CHARACTERISTICS	GOM_INS_AXNIEC20050627_150440_20020301_000000_20100101_000000	1	12-APR-2003 00:00:47
LEVEL-2_PROC_CONFIG	GOM_PR2_AXVIEC20091111_152718_20020301_000000_20500101_000000	1	12-APR-2003 00:00:47
CROSS_SECTIONS_FILE	GOM_CRS_AXVIEC20091111_154832_20020301_000000_20500101_000000	1	12-APR-2003 00:00:47

GOMOS Level 2 Daily Report

SUMMARY

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[5.8 Plot H2O profiles \(only for occultations of stars 1,2,3,4,13,14,16,26,63 dark without errors\) for all STD](#)

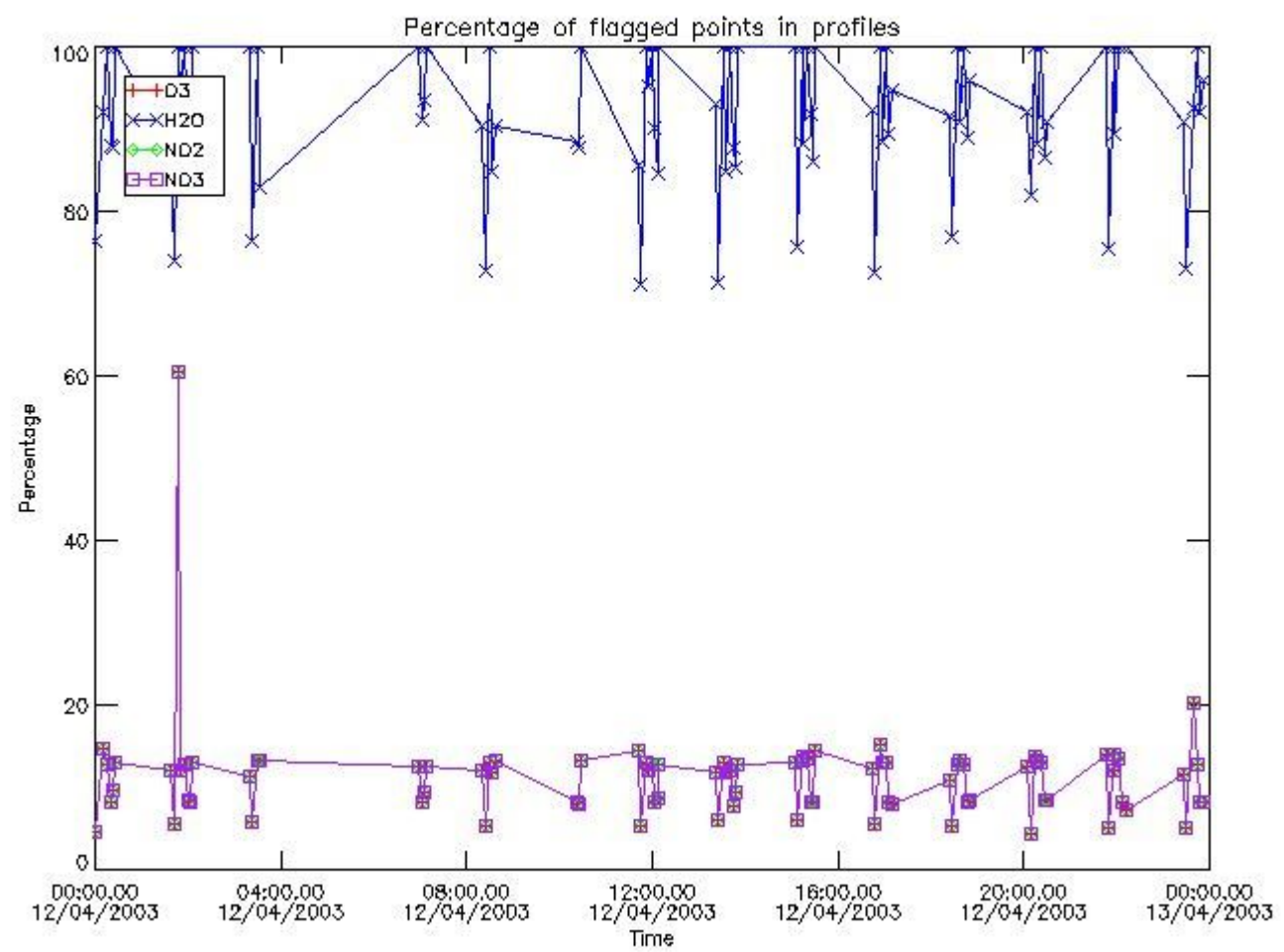
[6. Auxiliary Data Files used for the production reported in section 2](#)

279	GOM_NL__2PRFIN20030412_213247_000001062015_00272_05837_6764.N1	12-APR-2003 21:32:47	Bright	105.50	5	3Alp Lyr	0.033000	11000.	211	5837	No
280	GOM_NL__2PRFIN20030412_213601_000000522015_00272_05837_6765.N1	12-APR-2003 21:36:01	Bright	51.500	92	53Eps Cyg	2.5000	4500.0	103	5837	No
281	GOM_NL__2PRFIN20030412_214311_000000472015_00272_05837_6766.N1	12-APR-2003 21:43:11	Twilight	47.000	61	8Eps Peg	2.1000	3900.0	94	5837	No
282	GOM_NL__2PRFIN20030412_214540_000000402015_00272_05837_6767.N1	12-APR-2003 21:45:40	Dark	40.000	162	34Alp Aqr	2.9440	5350.0	80	5837	No
283	GOM_NL__2PRFIN20030412_214855_000001002015_00272_05837_6768.N1	12-APR-2003 21:48:55	Dark	100.00	11	53Alp Aql	0.76500	8000.0	200	5837	No
284	GOM_NL__2PRFIN20030412_215557_000000402015_00272_05837_6769.N1	12-APR-2003 21:55:57	Dark	40.000	172	Gam Gru	3.0030	13100.	80	5837	No
285	GOM_NL__2PRFIN20030412_215806_000000432015_00272_05837_6770.N1	12-APR-2003 21:58:06	Dark	42.500	31	Alp Gru	1.7340	15200.	85	5837	No
286	GOM_NL__2PRFIN20030412_220254_000000422015_00273_05838_6742.N1	12-APR-2003 22:02:54	Dark	41.500	45	Alp Pav	1.9400	26000.	83	5838	No
287	GOM_NL__2PRFIN20030412_220726_000000622015_00273_05838_6743.N1	12-APR-2003 22:07:26	Dark	62.000	38	20Eps Sgr	1.8360	11000.	124	5838	No
288	GOM_NL__2PRFIN20030412_221131_000000702015_00273_05838_6744.N1	12-APR-2003 22:11:31	Dark	69.500	25	35Lam Sco	1.6200	28000.	139	5838	No
289	GOM_NL__2PRFIN20030412_221452_000000462015_00273_05838_6745.N1	12-APR-2003 22:14:52	Straylight	45.500	4	Alp1Cen	-0.010000	5800.0	91	5838	No
290	GOM_NL__2PRFIN20030412_221934_000000442015_00273_05838_6746.N1	12-APR-2003 22:19:34	Straylight	44.000	81	Eta Cen	2.3560	28000.	88	5838	No
291	GOM_NL__2PRFIN20030412_222200_000000492015_00273_05838_6747.N1	12-APR-2003 22:22:00	Straylight	48.500	54	5The Cen	2.0550	4500.0	97	5838	No
292	GOM_NL__2PRFIN20030412_222348_000000942015_00273_05838_6748.N1	12-APR-2003 22:23:48	Tw_i_and_stray	94.000	80	7Del Sco	2.3160	30000.	188	5838	No
293	GOM_NL__2PRFIN20030412_222652_000000462015_00273_05838_6749.N1	12-APR-2003 22:26:52	Tw_i_and_stray	46.000	169	46Gam Hya	2.9910	4700.0	92	5838	No
294	GOM_NL__2PRFIN20030412_222830_000000642015_00273_05838_6750.N1	12-APR-2003 22:28:30	Bright	63.500	122	9Alp2Lib	2.7470	9700.0	127	5838	No
295	GOM_NL__2PRFIN20030412_223036_000000482015_00273_05838_6751.N1	12-APR-2003 22:30:36	Bright	47.500	15	67Alp Vir	0.97600	28000.	95	5838	No
296	GOM_NL__2PRFIN20030412_223341_000000392015_00273_05838_6752.N1	12-APR-2003 22:33:41	Bright	39.000	121	29Gam Vir	2.7400	7200.0	78	5838	No
297	GOM_NL__2PRFIN20030412_223736_000000412015_00273_05838_6753.N1	12-APR-2003 22:37:36	Bright	41.000	138	47Eps Vir	2.8280	4700.0	82	5838	No
298	GOM_NL__2PRFIN20030412_224016_000000352015_00273_05838_6754.N1	12-APR-2003 22:40:16	Bright	34.500	96	68Del Leo	2.5600	9300.0	69	5838	No
299	GOM_NL__2PRFIN20030412_224233_000000562015_00273_05838_6755.N1	12-APR-2003 22:42:33	Bright	56.000	3	16Alp Boo	-0.050000	4250.0	112	5838	No
300	GOM_NL__2PRFIN20030412_224549_000000392015_00273_05838_6756.N1	12-APR-2003 22:45:49	Bright	39.000	152	12Alp2CVn	2.8900	11000.	78	5838	No
301	GOM_NL__2PRFIN20030412_224929_000000372015_00273_05838_6757.N1	12-APR-2003 22:49:29	Bright	37.000	87	64Gam UMa	2.4330	11000.	74	5838	No
302	GOM_NL__2PRFIN20030412_225046_000000402015_00273_05838_6758.N1	12-APR-2003 22:50:46	Bright	39.500	32	77Eps UMa	1.7630	11000.	79	5838	No
303	GOM_NL__2PRFIN20030412_225311_000001152015_00273_05838_6759.N1	12-APR-2003 22:53:11	Bright	115.00	67	5Alp CrB	2.2210	11000.	230	5838	No
304	GOM_NL__2PRFIN20030412_225712_000000402015_00273_05838_6760.N1	12-APR-2003 22:57:12	Bright	39.500	60	7Bet UMi	2.0810	3950.0	79	5838	No
305	GOM_NL__2PRFIN20030412_225949_000000352015_00273_05838_6761.N1	12-APR-2003 22:59:49	Bright	35.000	49	1Alp UMi	1.9900	6300.0	70	5838	No
306	GOM_NL__2PRFIN20030412_230334_000000632015_00273_05838_6762.N1	12-APR-2003 23:03:34	Bright	62.500	130	23Bet Dra	2.7990	5800.0	125	5838	No
307	GOM_NL__2PRFIN20030412_230804_000000352015_00273_05838_6763.N1	12-APR-2003 23:08:04	Bright	35.000	74	11Bet Cas	2.2680	6600.0	70	5838	No
308	GOM_NL__2PRFIN20030412_231324_000001162015_00273_05838_6764.N1	12-APR-2003 23:13:24	Bright	116.00	5	3Alp Lyr	0.033000	11000.	232	5838	No
309	GOM_NL__2PRFIN20030412_231637_000000522015_00273_05838_6765.N1	12-APR-2003 23:16:37	Bright	51.500	92	53Eps Cyg	2.5000	4500.0	103	5838	No
310	GOM_NL__2PRFIN20030412_232348_000000492015_00273_05838_6766.N1	12-APR-2003 23:23:48	Twilight	49.000	61	8Eps Peg	2.1000	3900.0	98	5838	No
311	GOM_NL__2PRFIN20030412_232616_000000452015_00273_05838_6767.N1	12-APR-2003 23:26:16	Dark	44.500	162	34Alp Aqr	2.9440	5350.0	89	5838	No
312	GOM_NL__2PRFIN20030412_232932_000001022015_00273_05838_6768.N1	12-APR-2003 23:29:32	Dark	102.00	11	53Alp Aql	0.76500	8000.0	204	5838	No
313	GOM_NL__2PRFIN20030412_233842_000000402015_00273_05838_6769.N1	12-APR-2003 23:38:42	Dark	40.000	31	Alp Gru	1.7340	15200.	80	5838	No
314	GOM_NL__2PRFIN20030412_234331_000000402015_00274_05839_6742.N1	12-APR-2003 23:43:31	Dark	40.000	45	Alp Pav	1.9400	26000.	80	5839	No
315	GOM_NL__2PRFIN20030412_234803_000000632015_00274_05839_6743.N1	12-APR-2003 23:48:03	Dark	62.500	38	20Eps Sgr	1.8360	11000.	125	5839	No
316	GOM_NL__2PRFIN20030412_235208_000000632015_00274_05839_6744.N1	12-APR-2003 23:52:08	Dark	62.500	25	35Lam Sco	1.6200	28000.	125	5839	No
317	GOM_NL__2PRFIN20030412_235528_000000442015_00274_05839_6745.N1	12-APR-2003 23:55:28	Straylight	43.500	4	Alp1Cen	-0.010000	5800.0	87	5839	No

3. Quality information per product

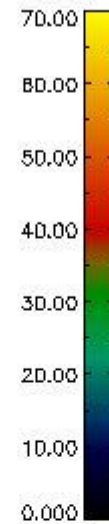
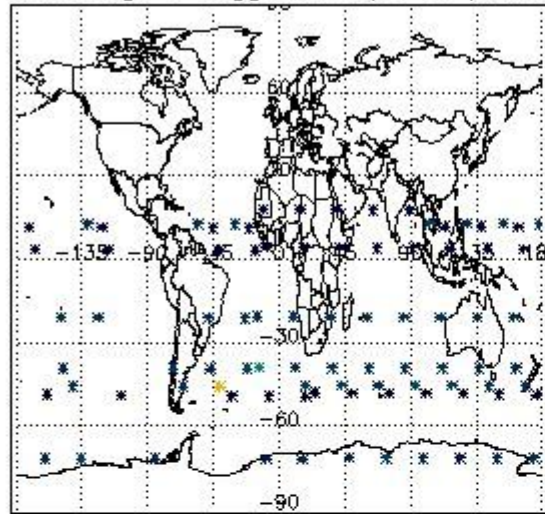
In this section it is plotted some information contained in the Quality Summary data set of the level 2 products. Only products in dark limb conditions and without errors (error flag in the MPH set to "0") are used.

3.1 Plot quality information per product (time dependant)

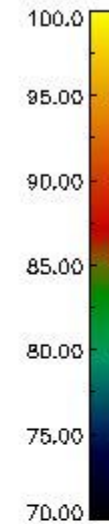
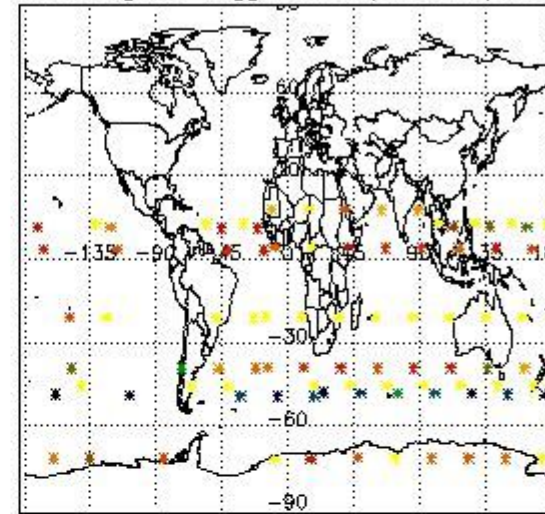


3.2 Plot quality information per product (world map)

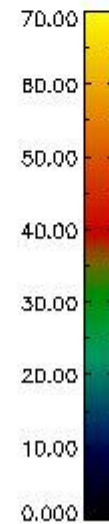
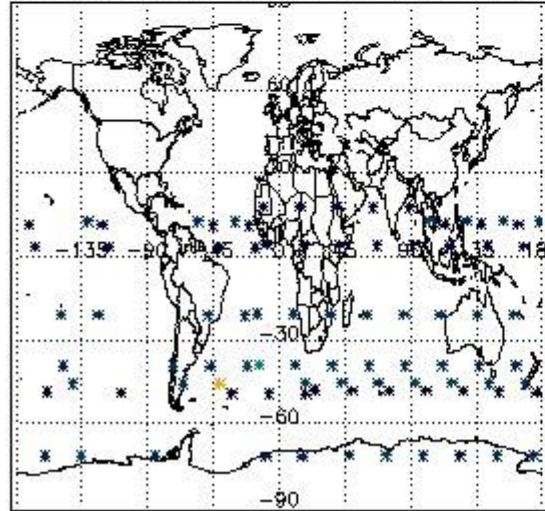
Percentage of flagged data per O3 profile



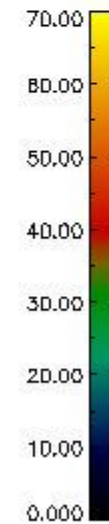
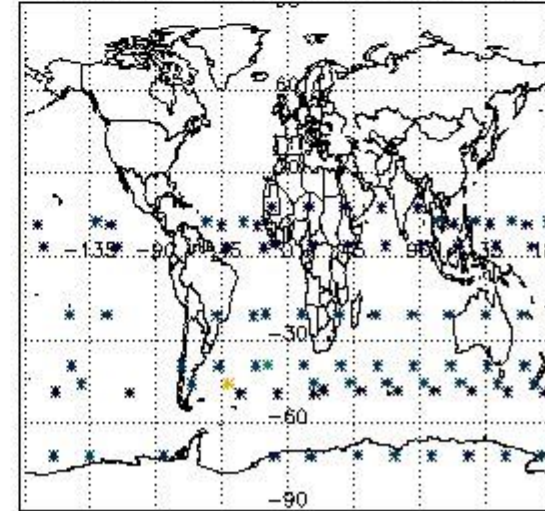
Percentage of flagged data per H2O profile



Percentage of flagged data per NO2 profile



Percentage of flagged data per NO3 profile

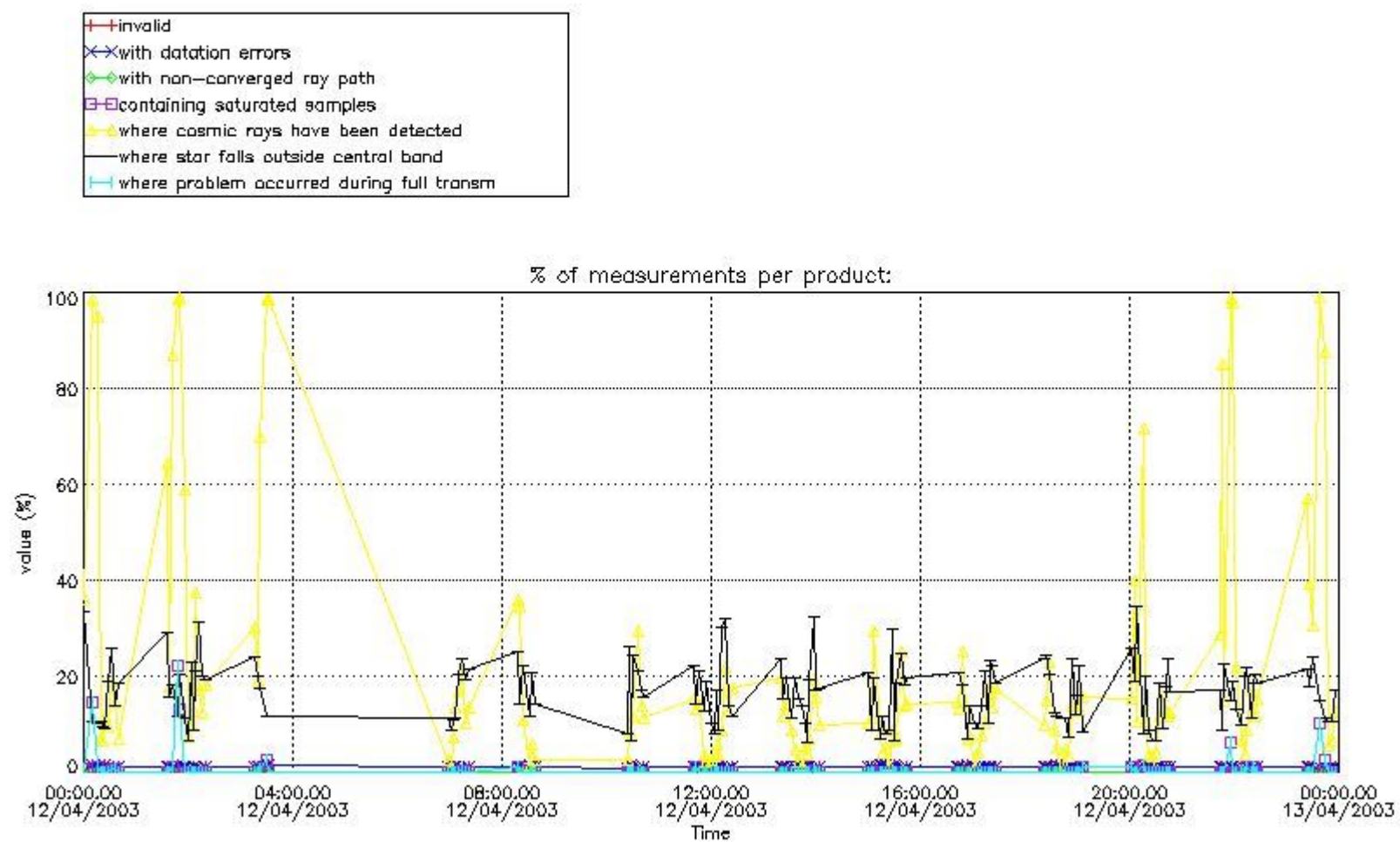


4. Level 1 quality information per product

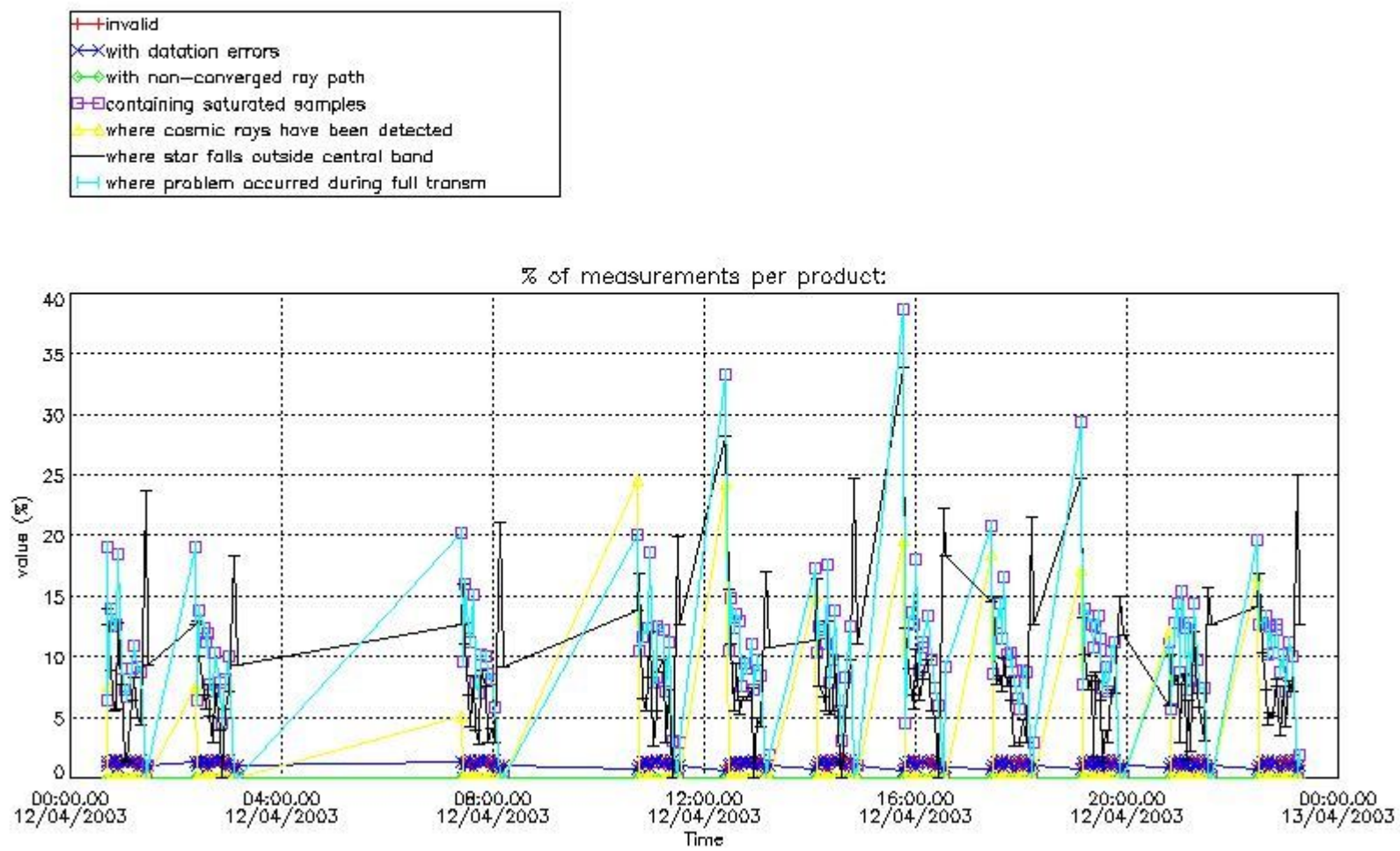
In this section it is plotted some information contained in the Quality Summary data set of the level 2 products that comes from the level 1b processing. Products without errors (error flag in the MPH set to "0") are used.

4.1 Plot quality information per product (time dependant) coming from level 1b processing

4.1.1 Plot level 1 quality information per product (time dependant): ENVISAT ASCENDING passes



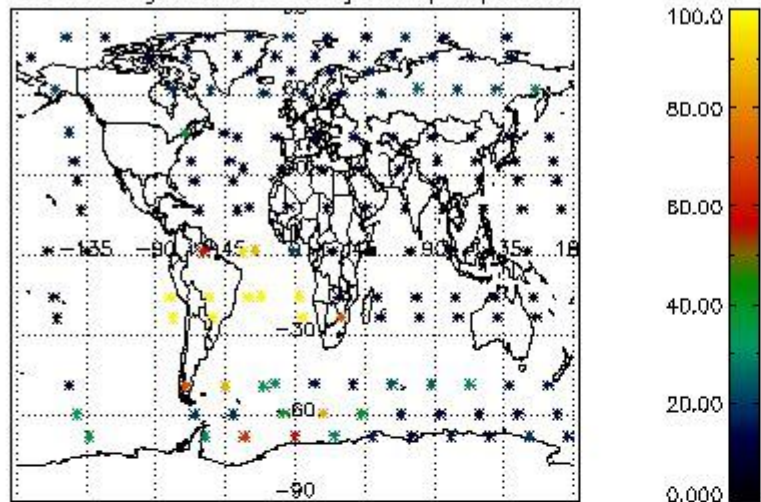
4.1.2 Plot level 1 quality information per product (time dependant): ENVI SAT DESCENDING passes



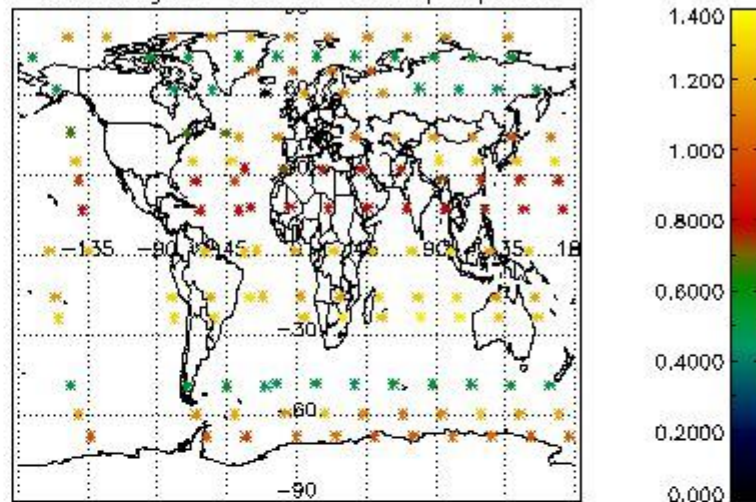
4.2 Plot quality information per product coming from level 1b processing (world map)

4.2.1 Plot level 1 quality information per product (world map): ENVISAT ASCENDING passes

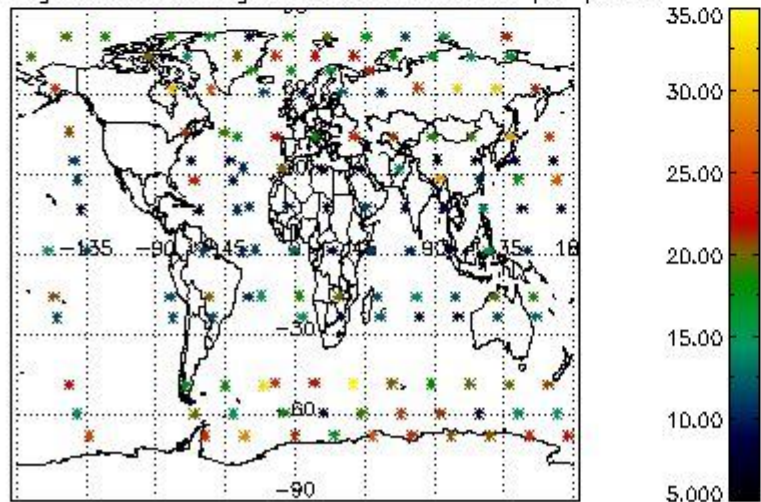
Percentage of cosmic ray hits per profile



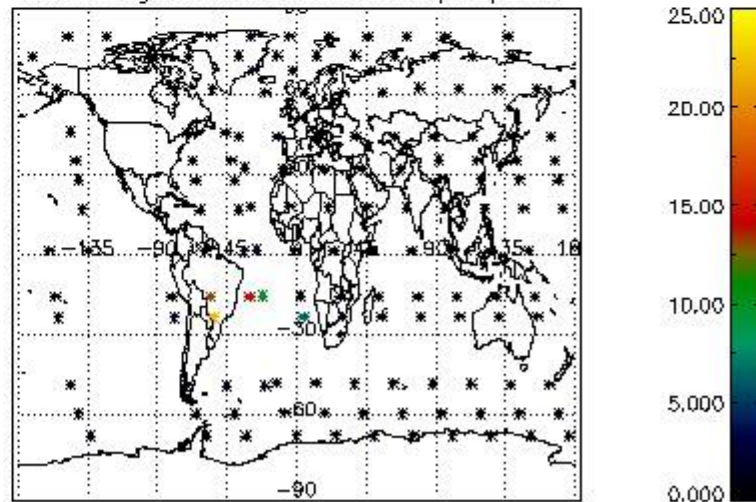
Percentage of datation errors per profile



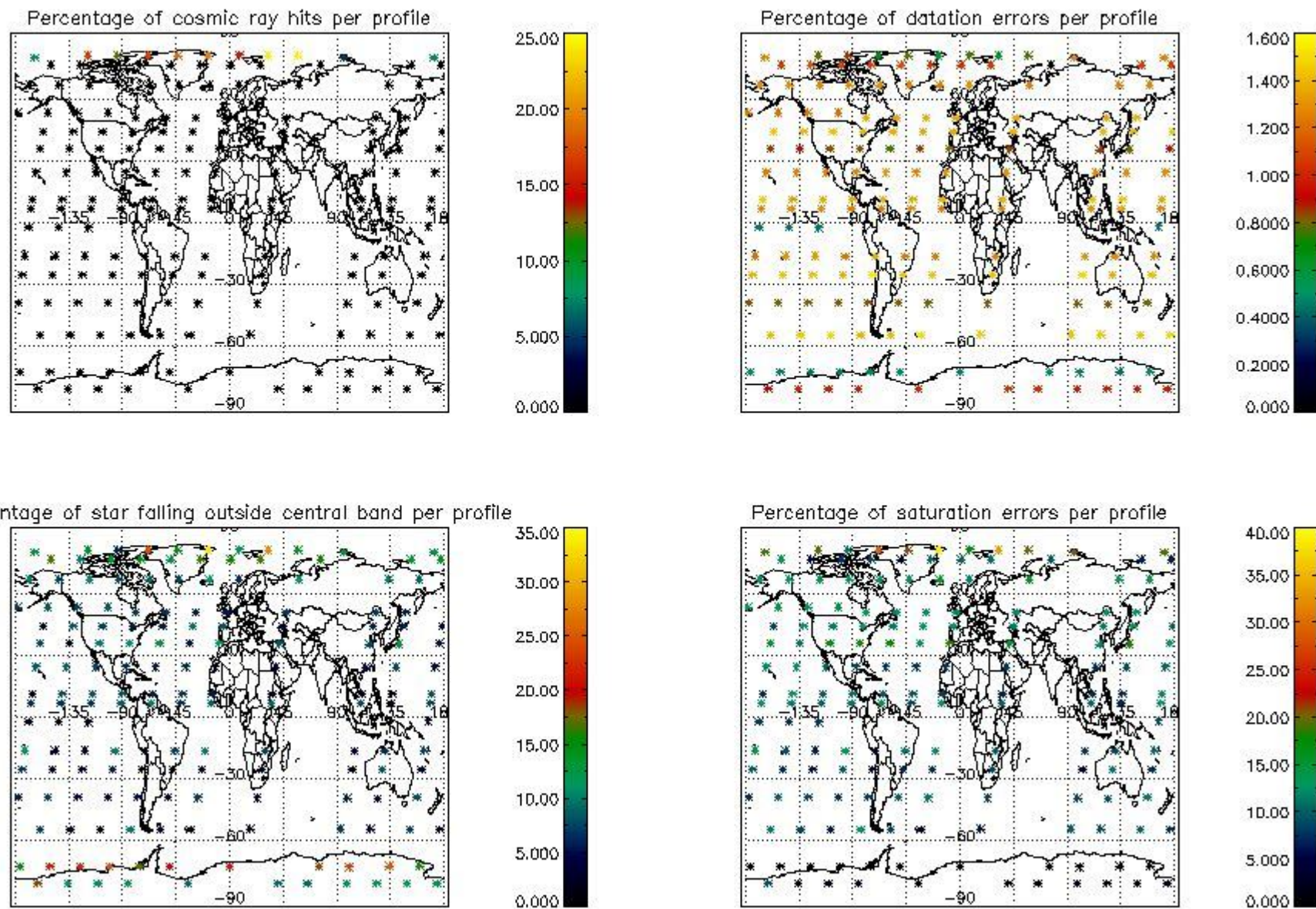
Percentage of star falling outside central band per profile



Percentage of saturation errors per profile



4.2.2 Plot level 1 quality information per product (world map): ENVISAT DESCENDING passes



5. Trace gas profiles

5.1 Ozone statistics based on quality of products

The final quality of the products can be "measured" using the STD (Standard Deviation) attached to every point profile. This information is written to the parameter GOM_NL__2P/NL_LOCAL_SPECIES_DENSITY/o3_std of the level 2 products. The table below shows the statistics for given STD ranges.

The statistics are given with respect to the overall valid production:

- Products without fatal errors: GOM_NL__2P/MPH/PRODUCT_ERR=0
- Valid point profile: GOM_NL__2P/NL_LOCAL_SPECIES_DENSITY/pcd(0)=0

The 'Criteria' is applied to valid points of dark limb products:

- Products in dark limb illumination condition: GOM_NL__2P/NL_SUMMARY_QUALITY/obs_ill_cond=0
- Products without fatal errors: GOM_NL__2P/MPH/PRODUCT_ERR=0
- Valid point profile: GOM_NL__2P/NL_LOCAL_SPECIES_DENSITY/pcd(0)=0

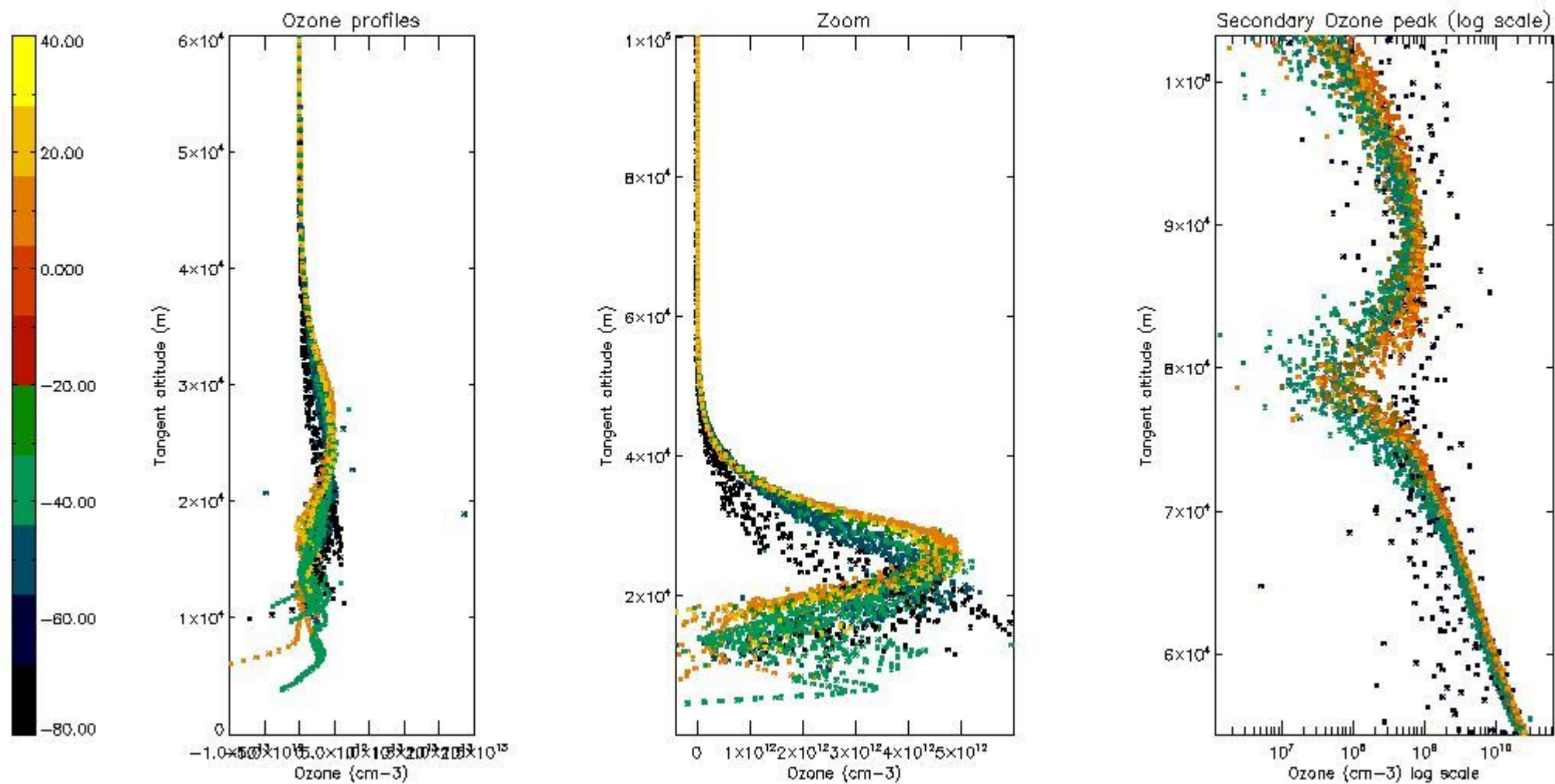
So, the table below shows the percentage of dark limb and valid observations for each criteria with respect to the overall valid daily observations.

Criteria	% of total production
All STD	28
STD < 20	19

STD < 10	16
STD < 5	13

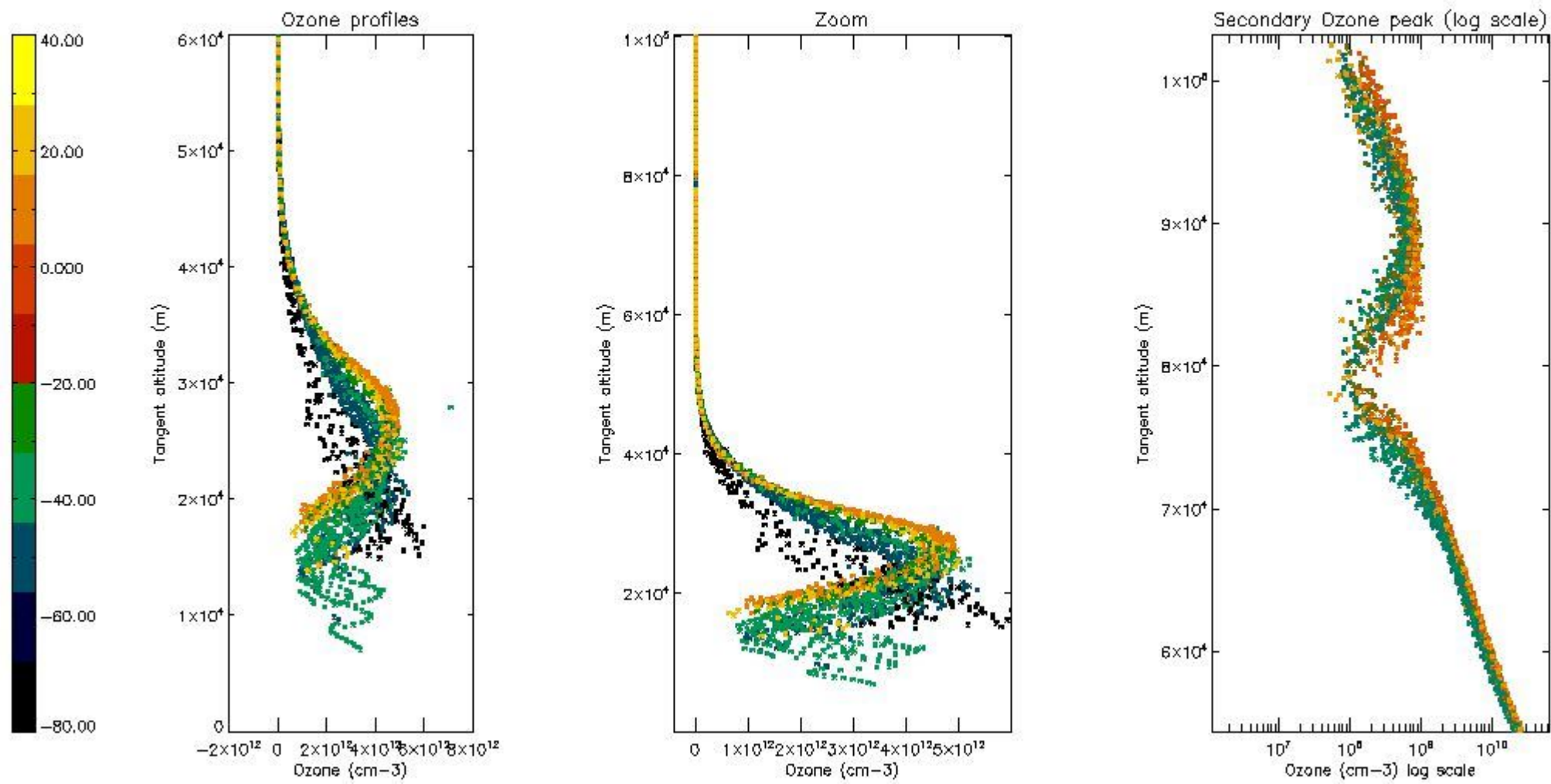
5.2 Plot ozone profiles for all STD (dark without errors)

The colorbar represents the latitude.



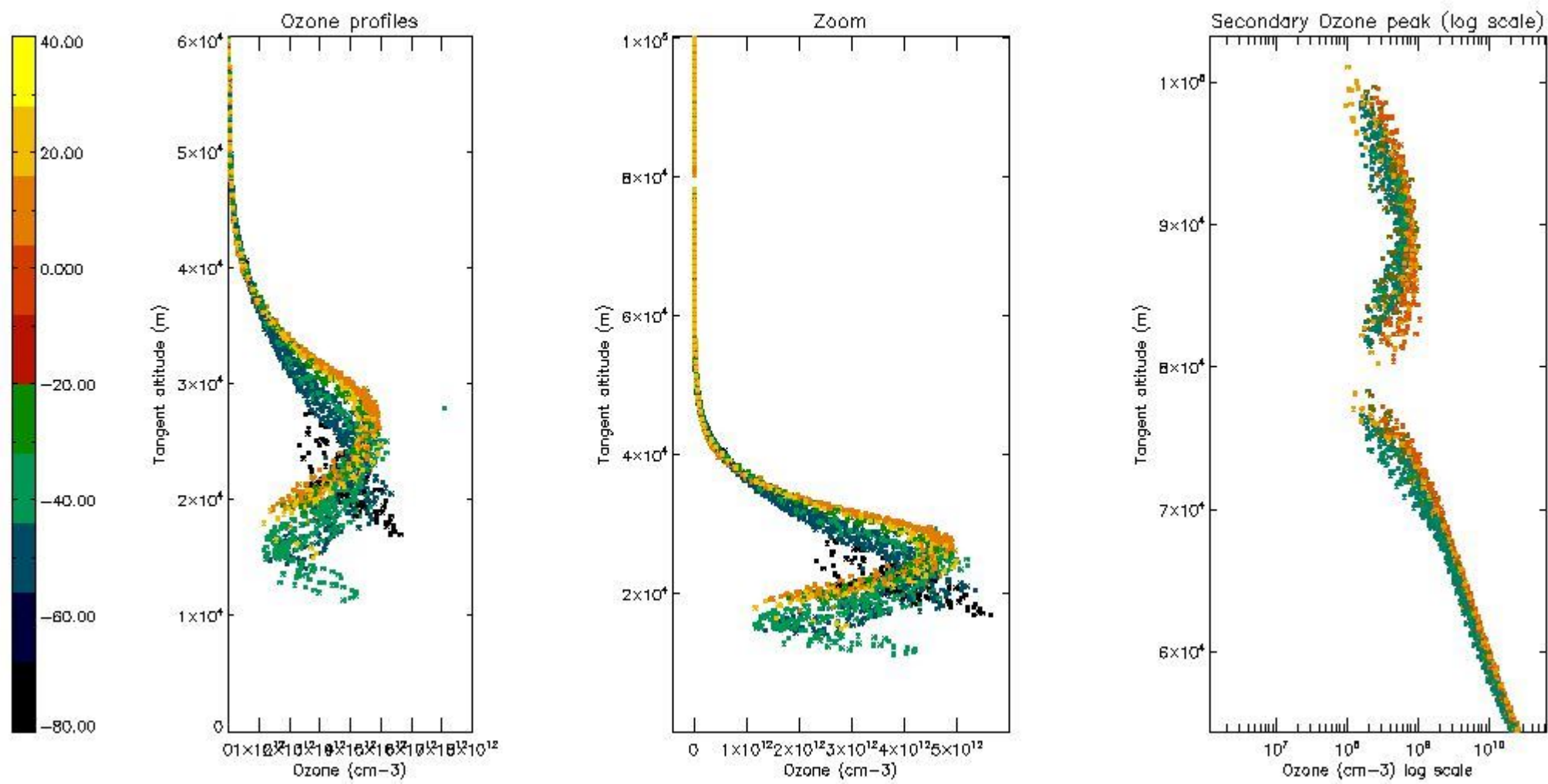
5.3 Plot ozone profiles where STD < 20% (dark without errors)

The colorbar represents the latitude.



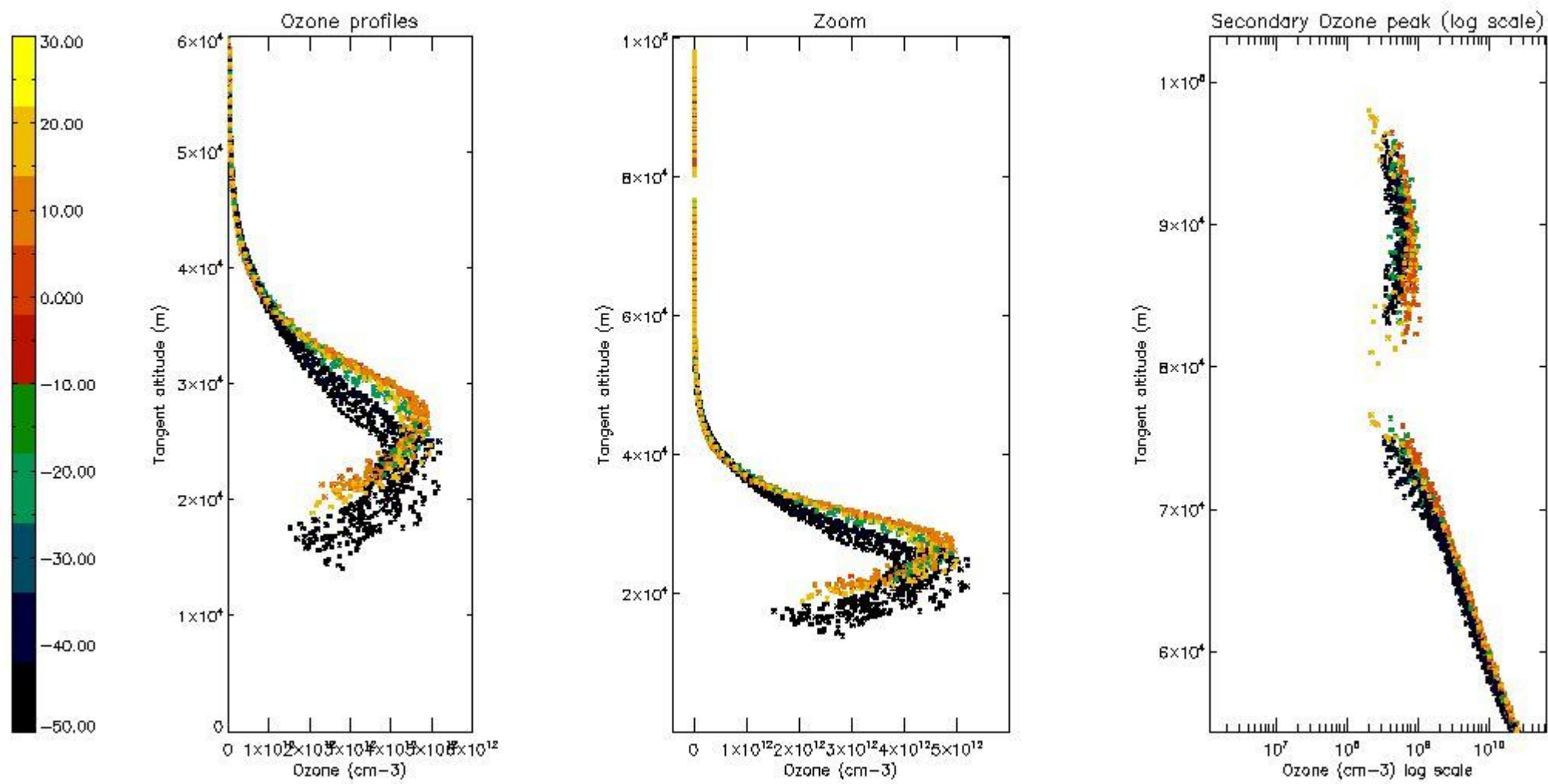
5.4 Plot ozone profiles where STD < 10% (dark without errors)

The colorbar represents the latitude.



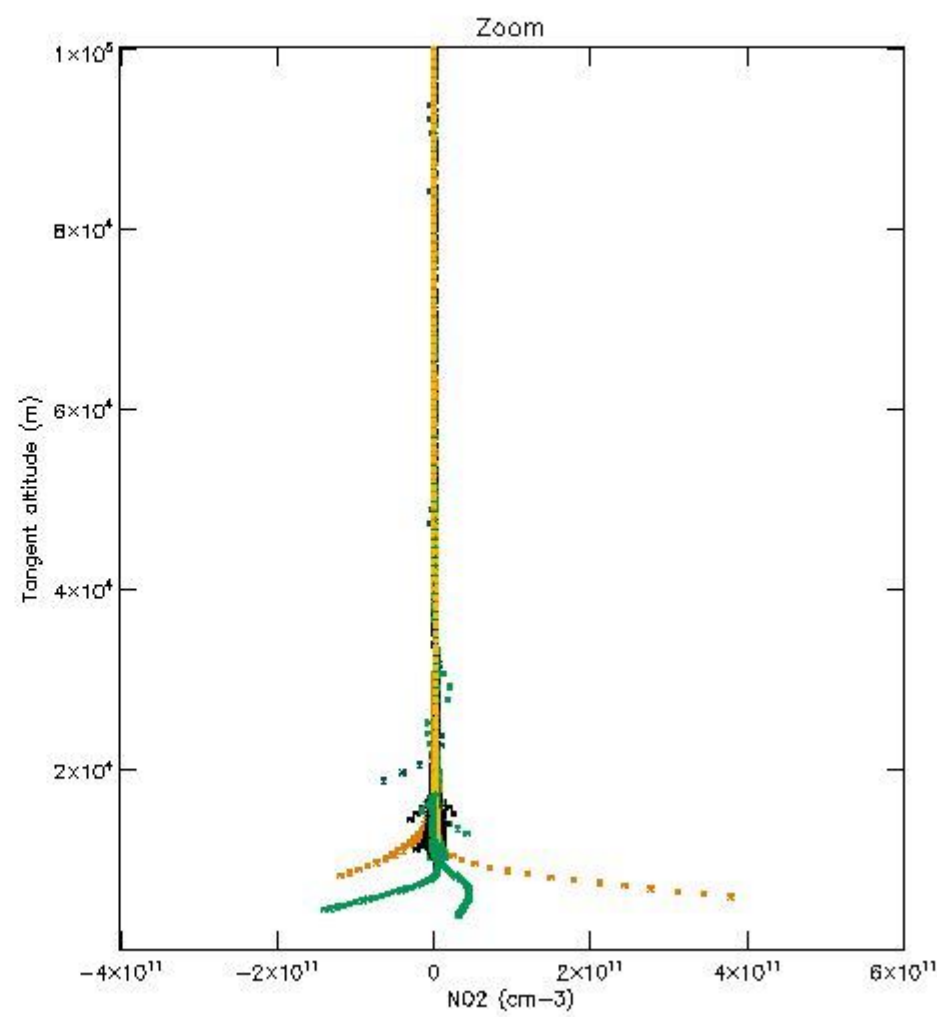
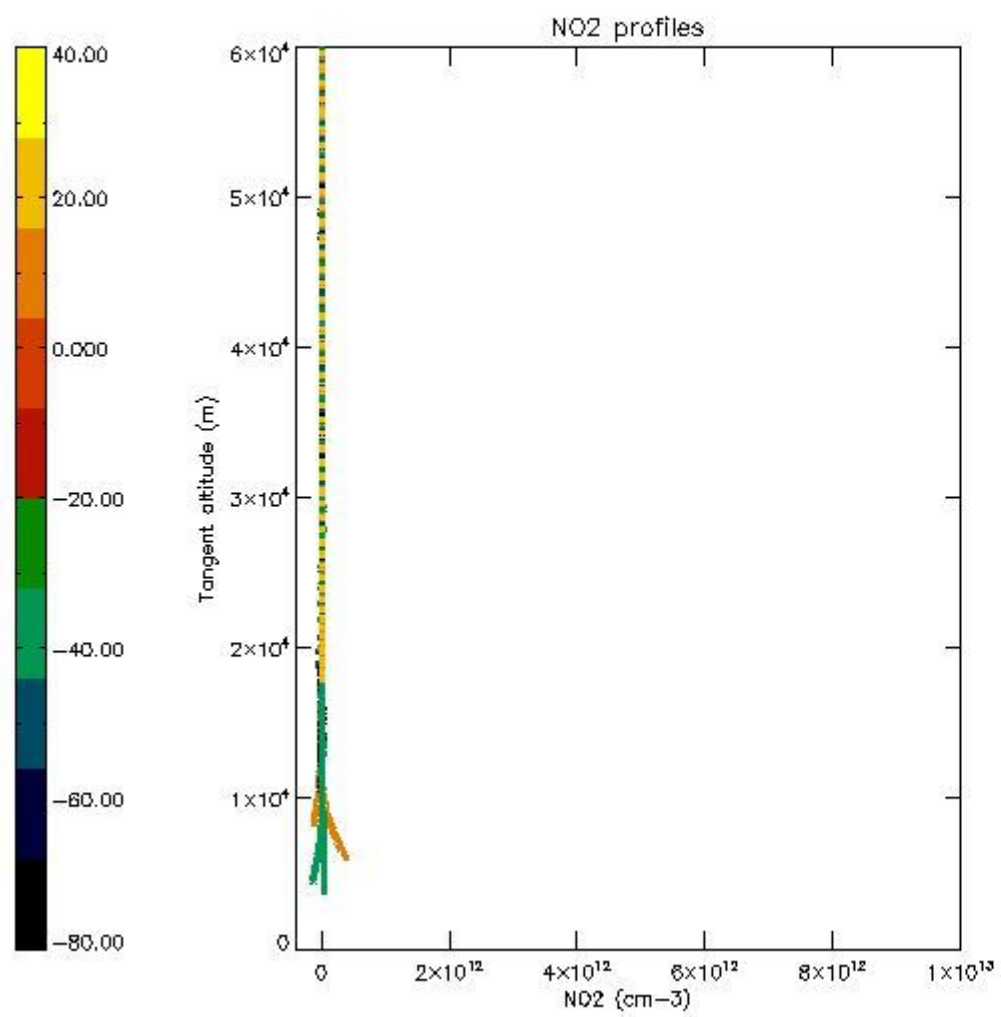
5.5 Plot ozone profiles where STD < 5% (dark without errors)

The colorbar represents the latitude.



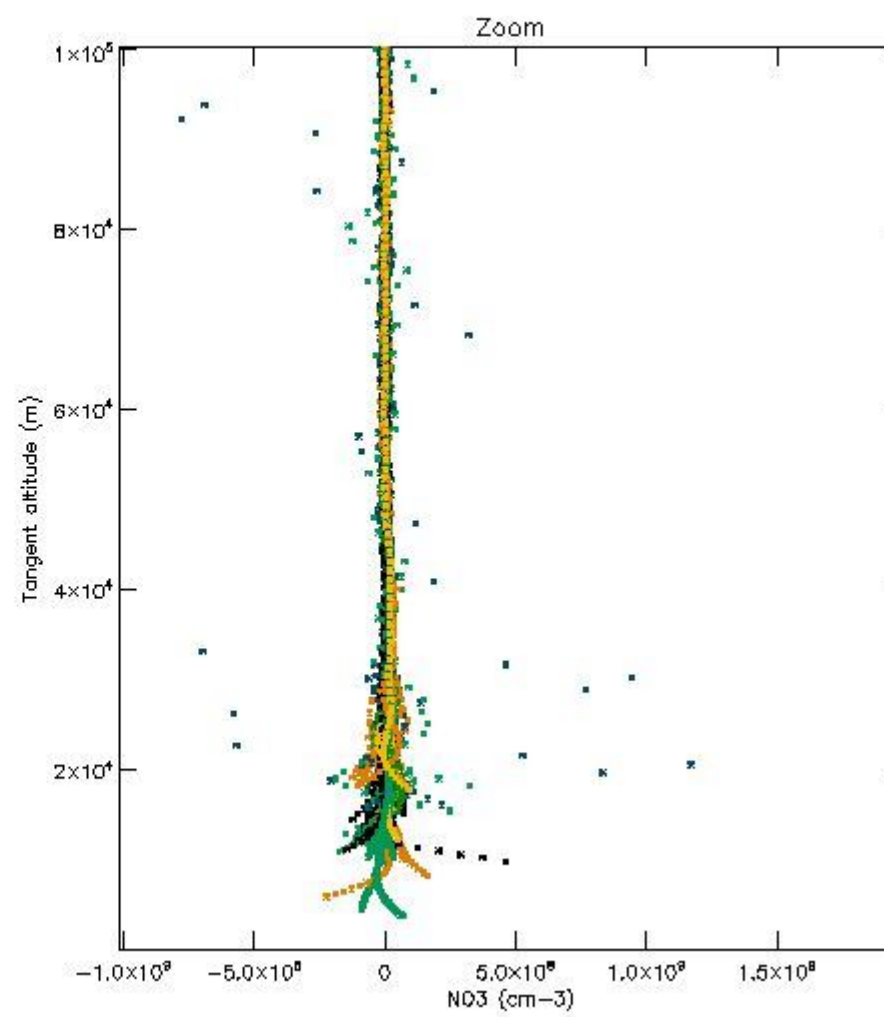
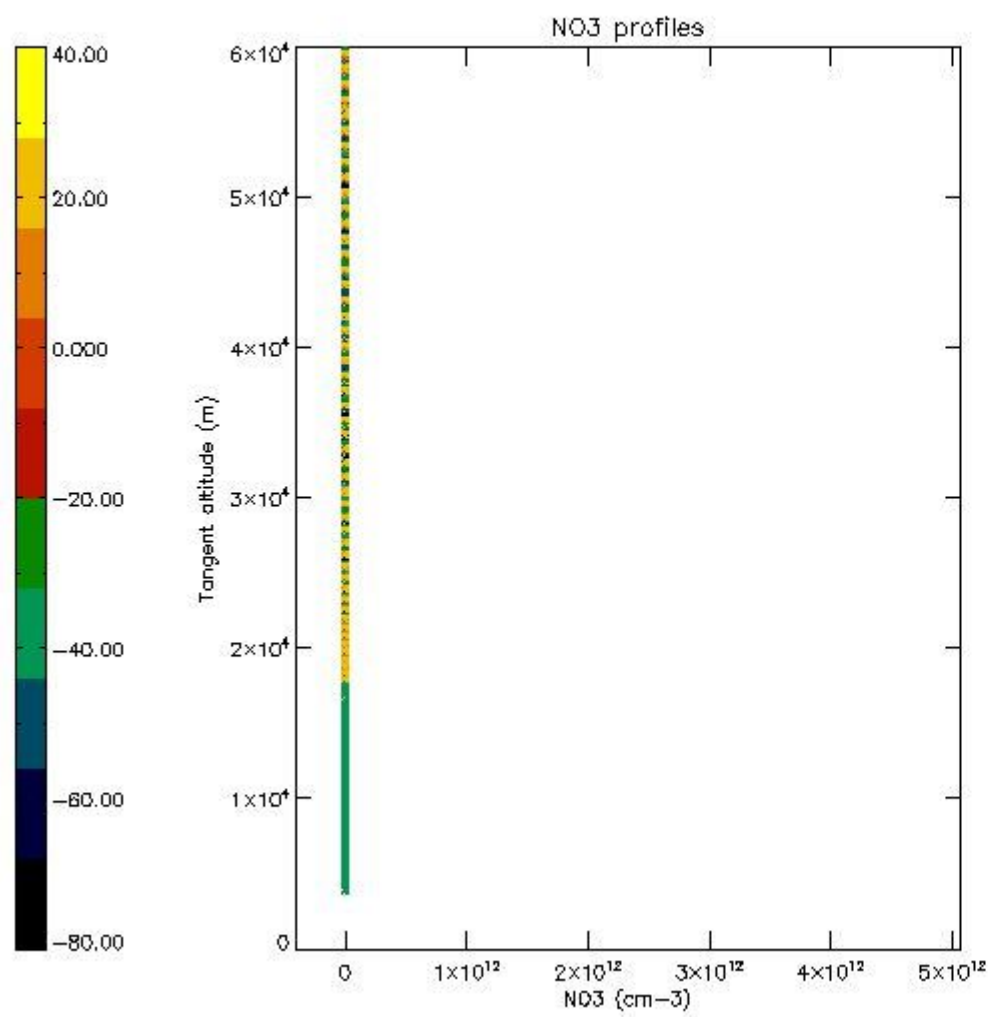
5.6 Plot NO₂ profiles for all STD (dark without errors)

The colorbar represents the latitude.



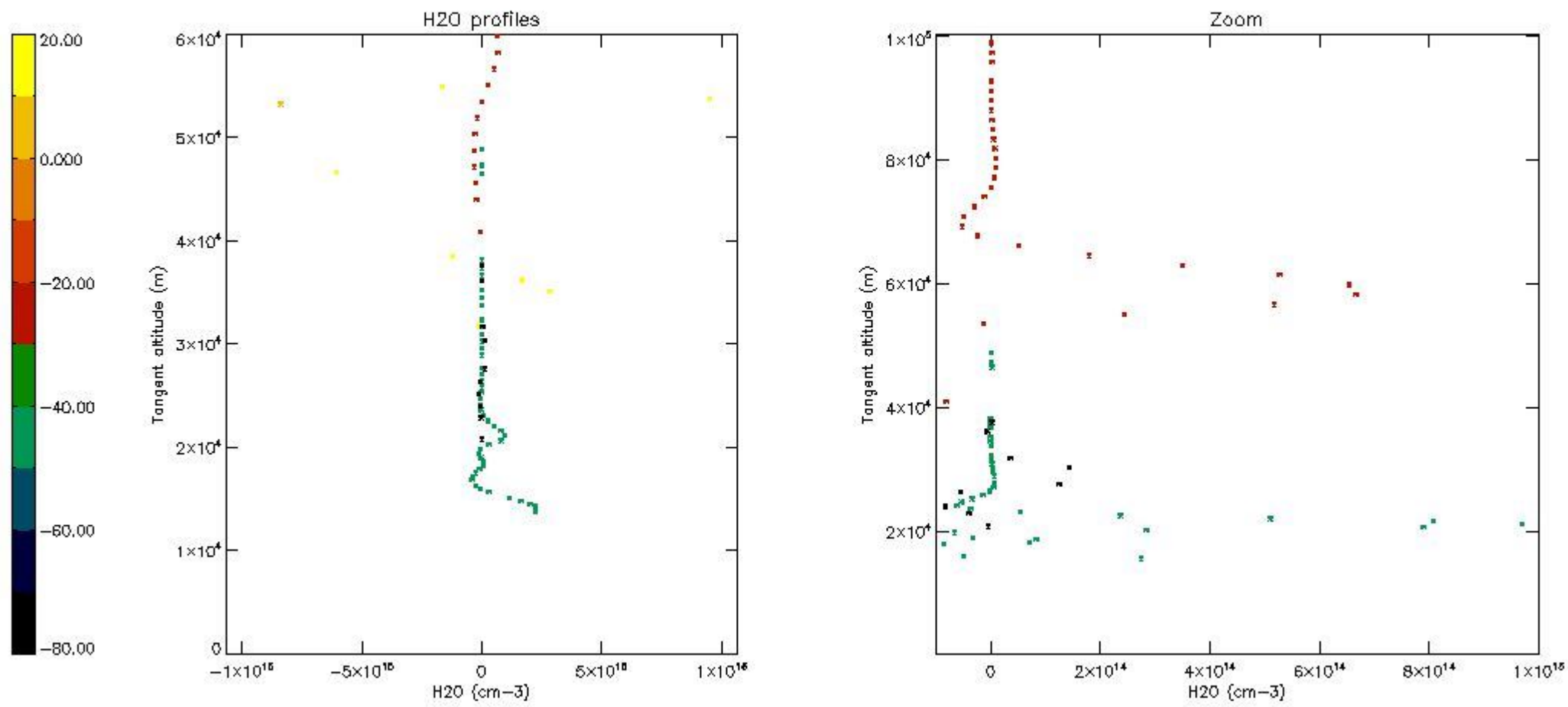
5.7 Plot NO3 profiles for all STD (dark without errors)

The colorbar represents the latitude.



5.8 Plot H2O profiles for all STD (only for occultations of stars 1,2,3,4,13,14,16,26,63 dark without errors)

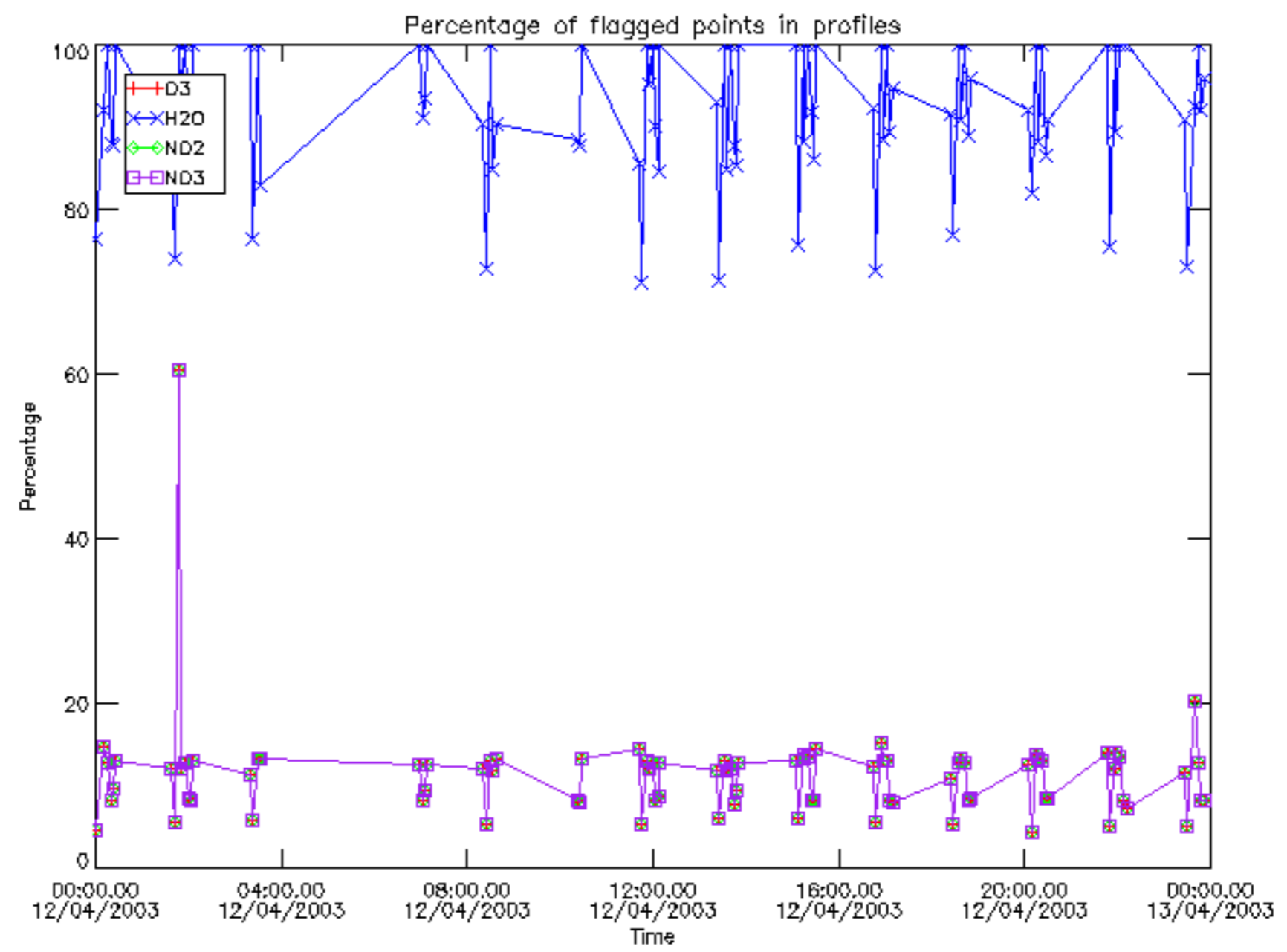
The colorbar represents the latitude.



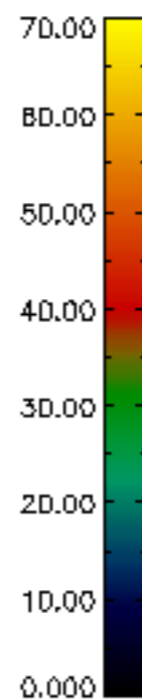
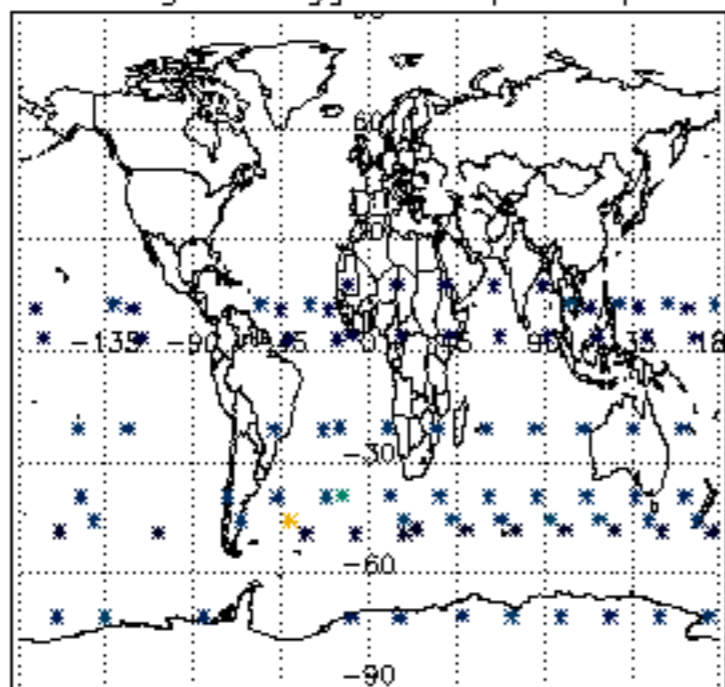
6. Auxiliary Data Files used for the production reported in section 2

The number reported in the third column indicates since which file (see list in section 2) the corresponding auxiliary file has been used. The fourth column is the date of those product files.

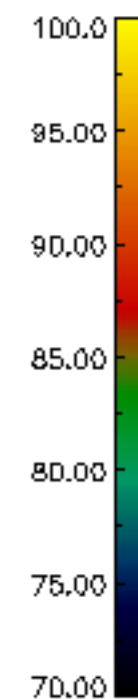
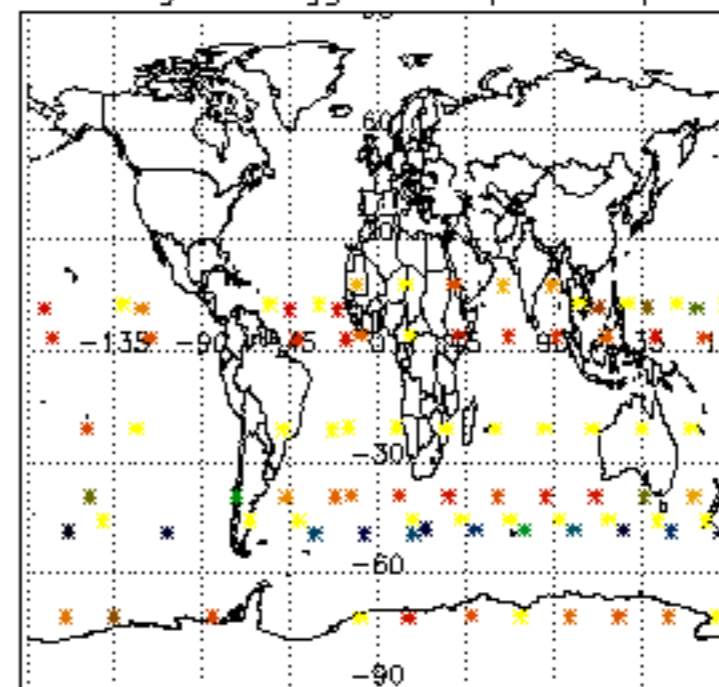
Type	Auxiliary Filename	Used since product	Used since product date
INST_PHYS_CHARACTERISTICS	GOM_INS_AXNIEC20050627_150440_20020301_000000_20100101_000000	1	12-APR-2003 00:00:47
LEVEL-2_PROC_CONFIG	GOM_PR2_AXVIEC20091111_152718_20020301_000000_20500101_000000	1	12-APR-2003 00:00:47
CROSS_SECTIONS_FILE	GOM_CRS_AXVIEC20091111_154832_20020301_000000_20500101_000000	1	12-APR-2003 00:00:47



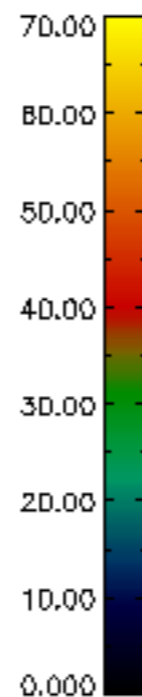
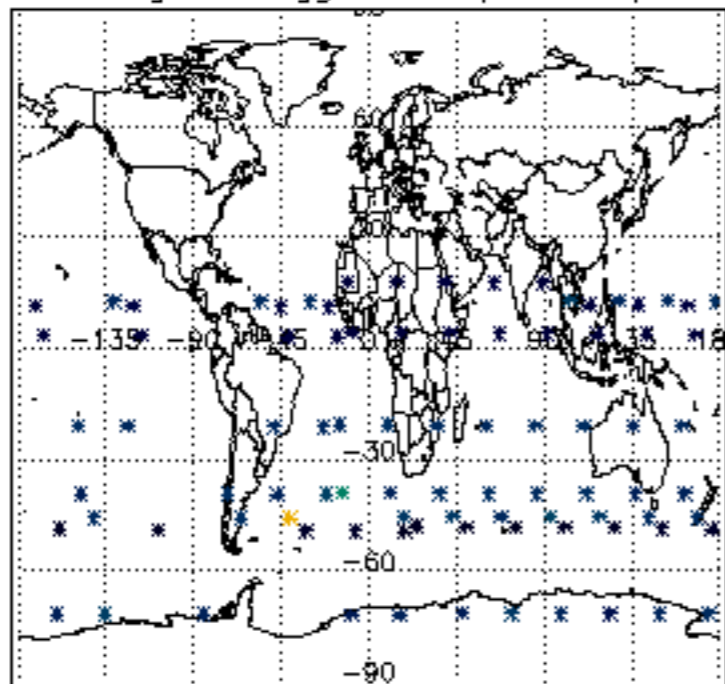
Percentage of flagged data per D3 profile



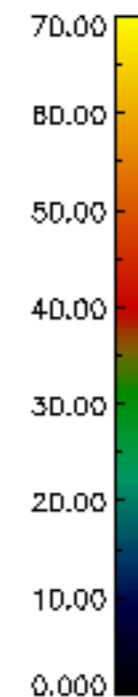
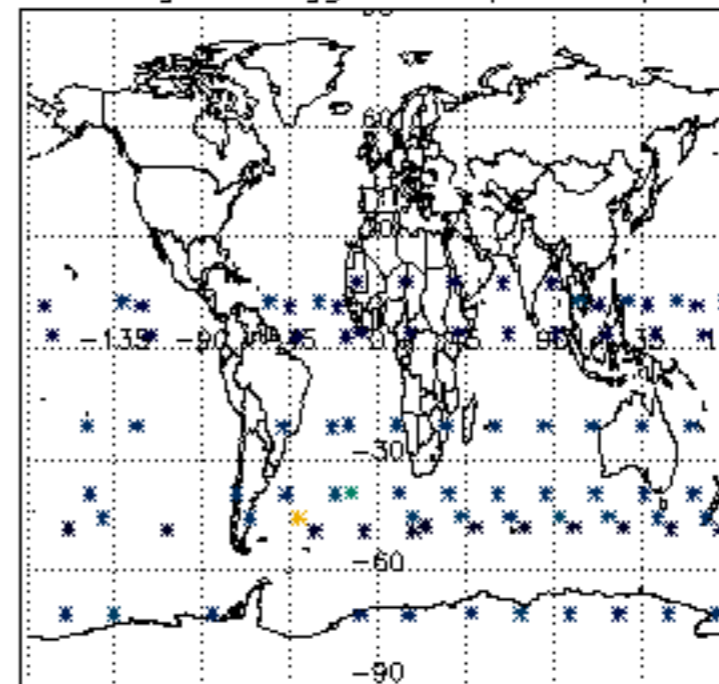
Percentage of flagged data per H2O profile

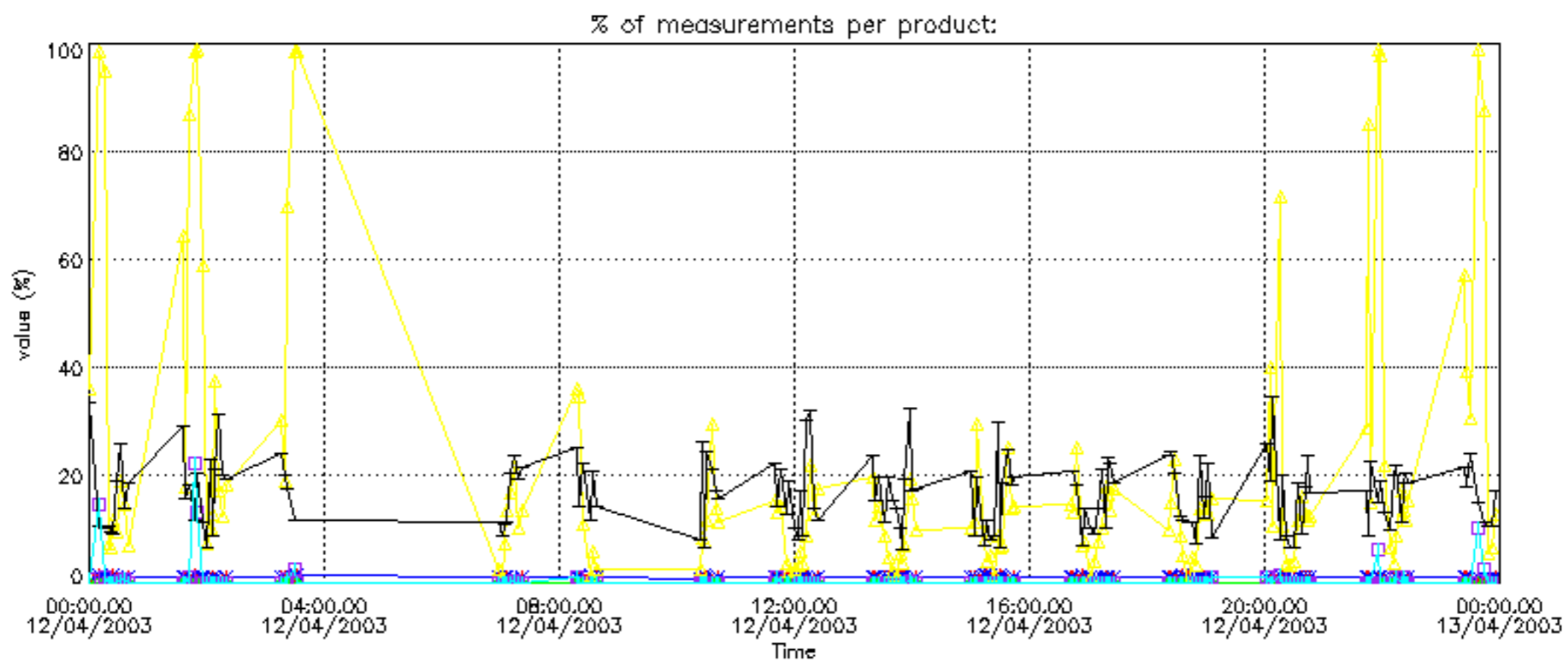


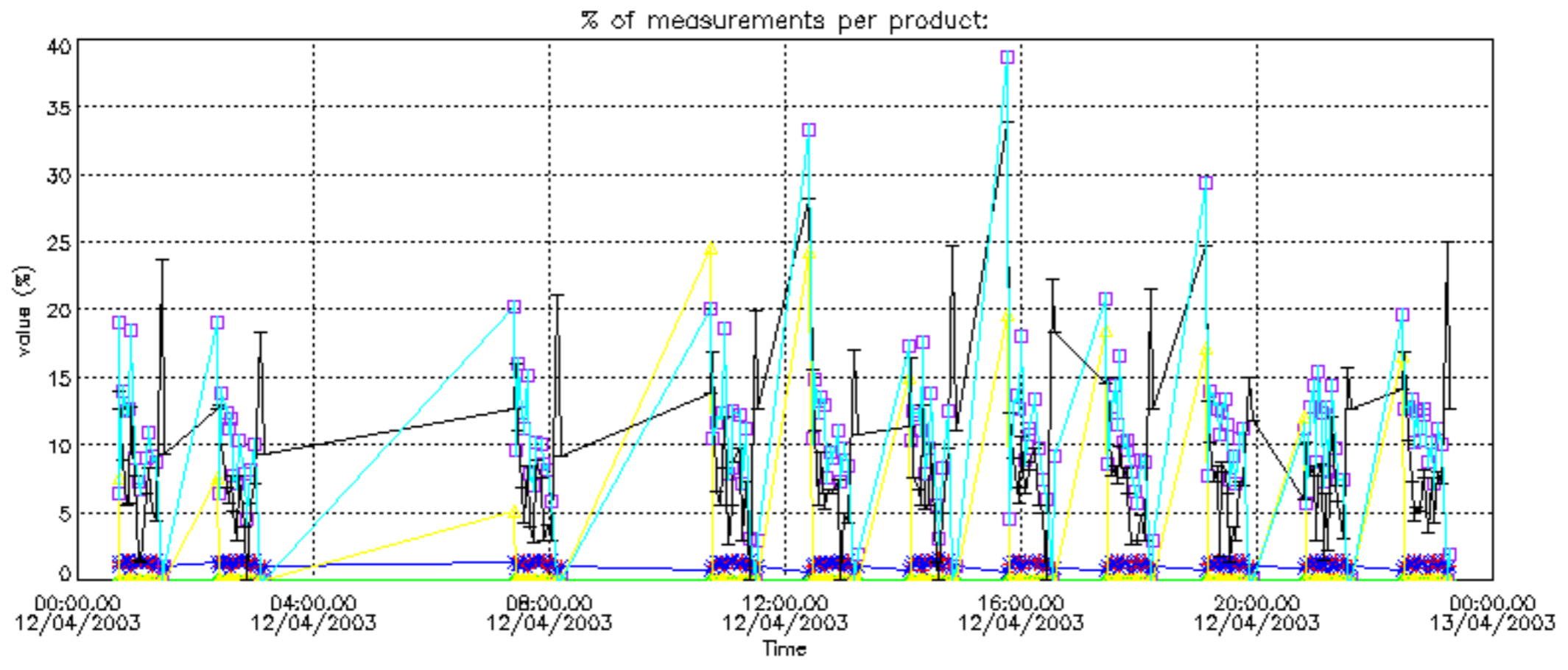
Percentage of flagged data per NO2 profile



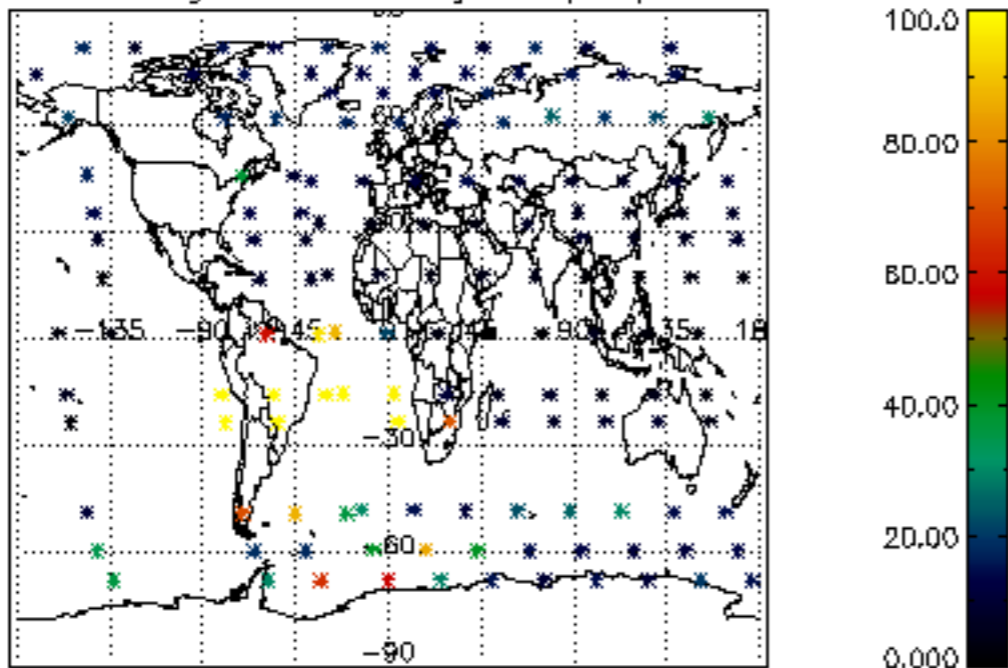
Percentage of flagged data per NO3 profile



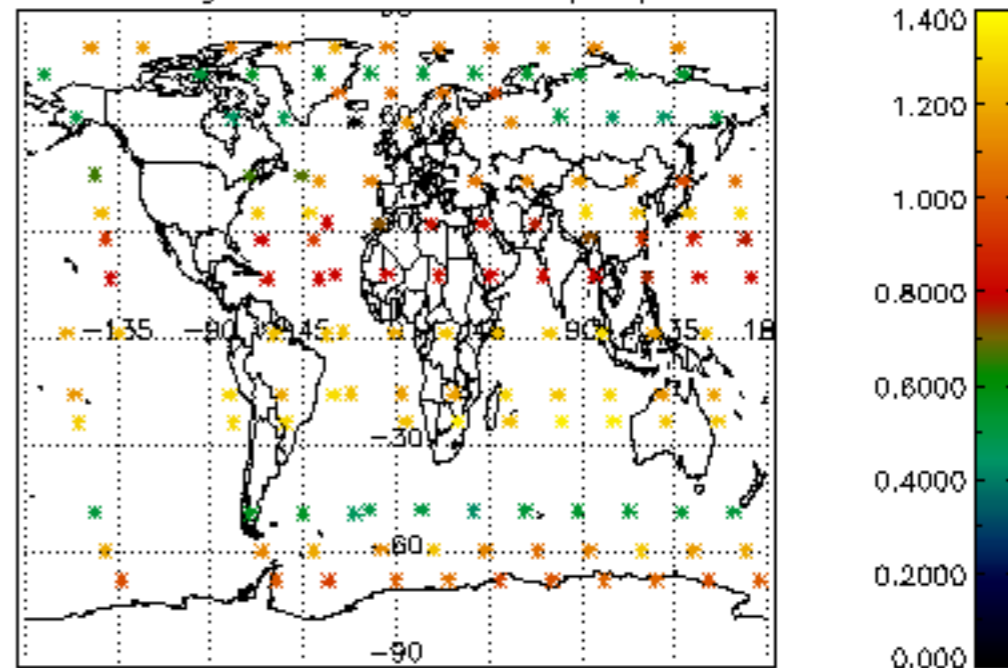




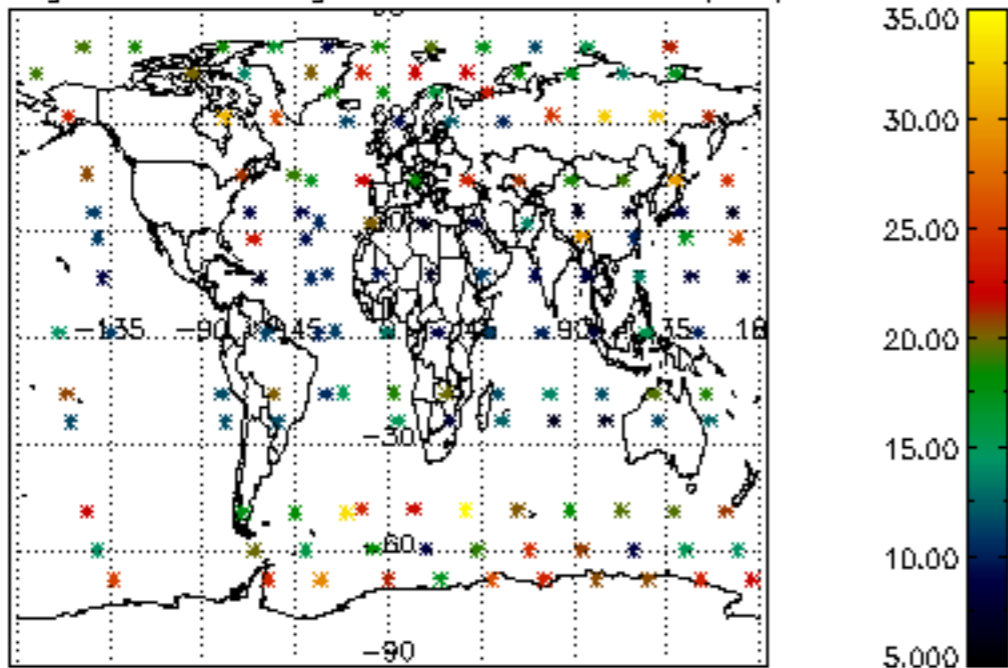
Percentage of cosmic ray hits per profile



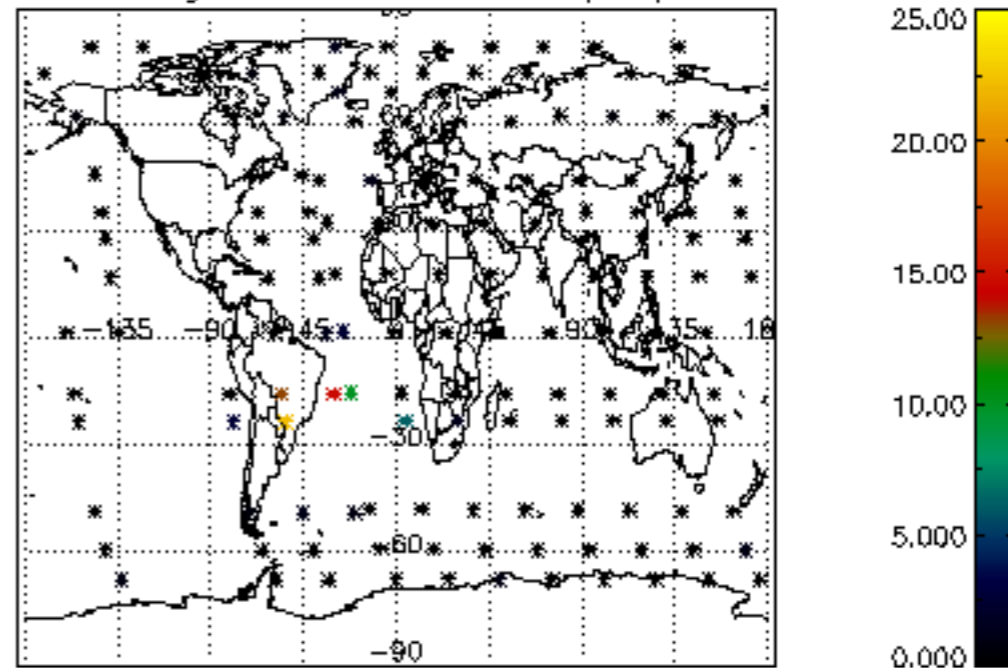
Percentage of datation errors per profile



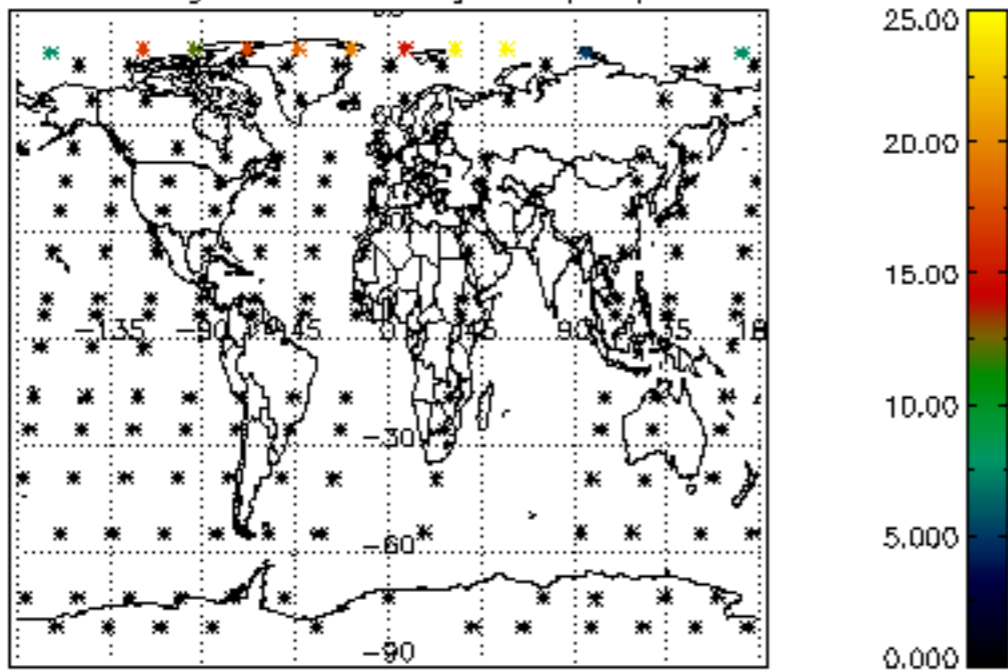
Percentage of star falling outside central band per profile



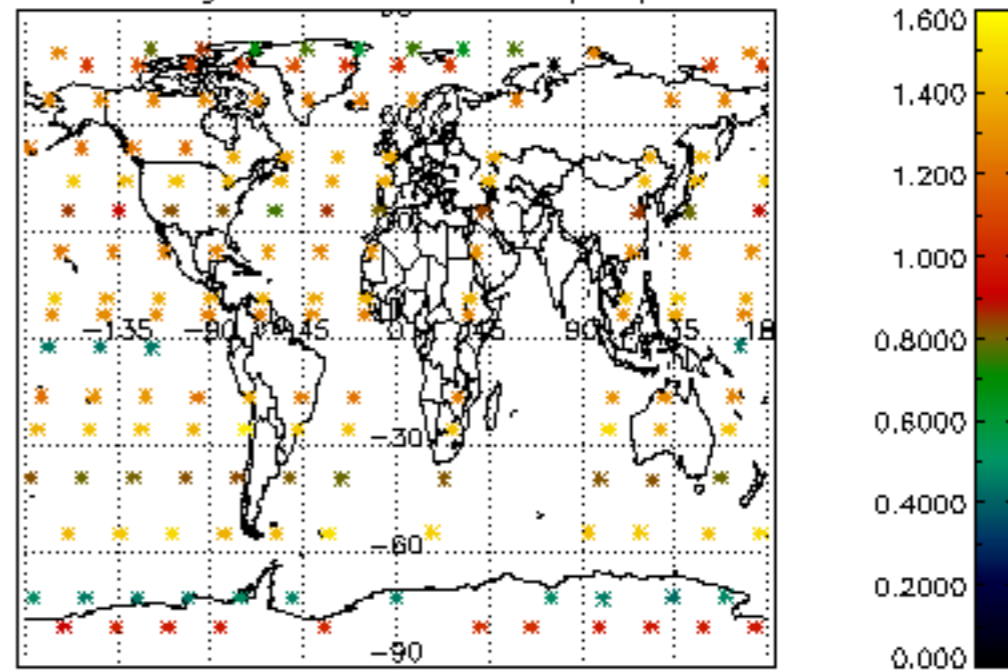
Percentage of saturation errors per profile



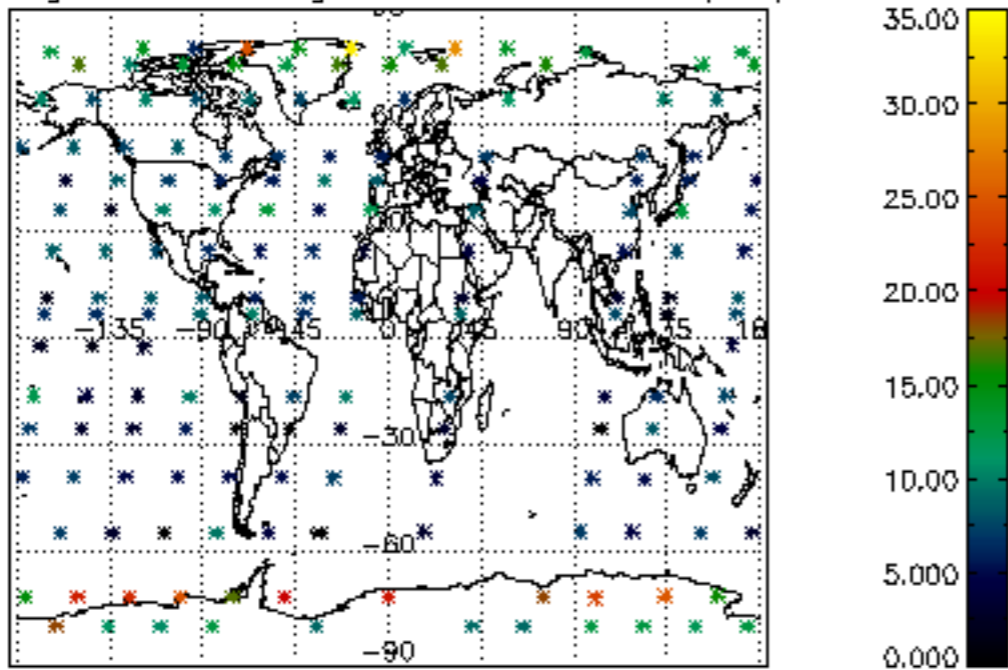
Percentage of cosmic ray hits per profile



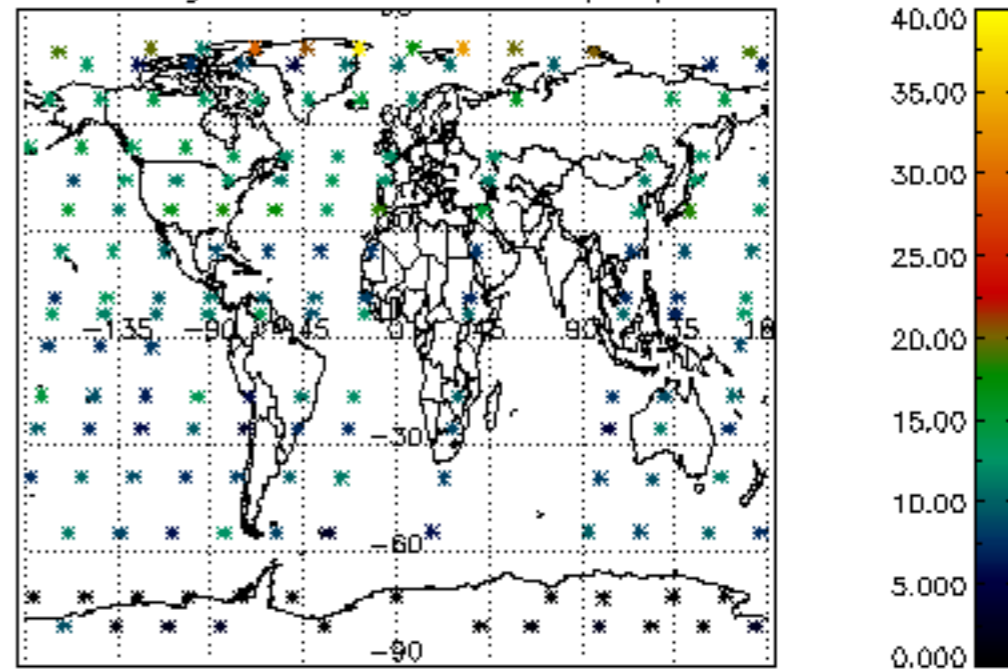
Percentage of datation errors per profile

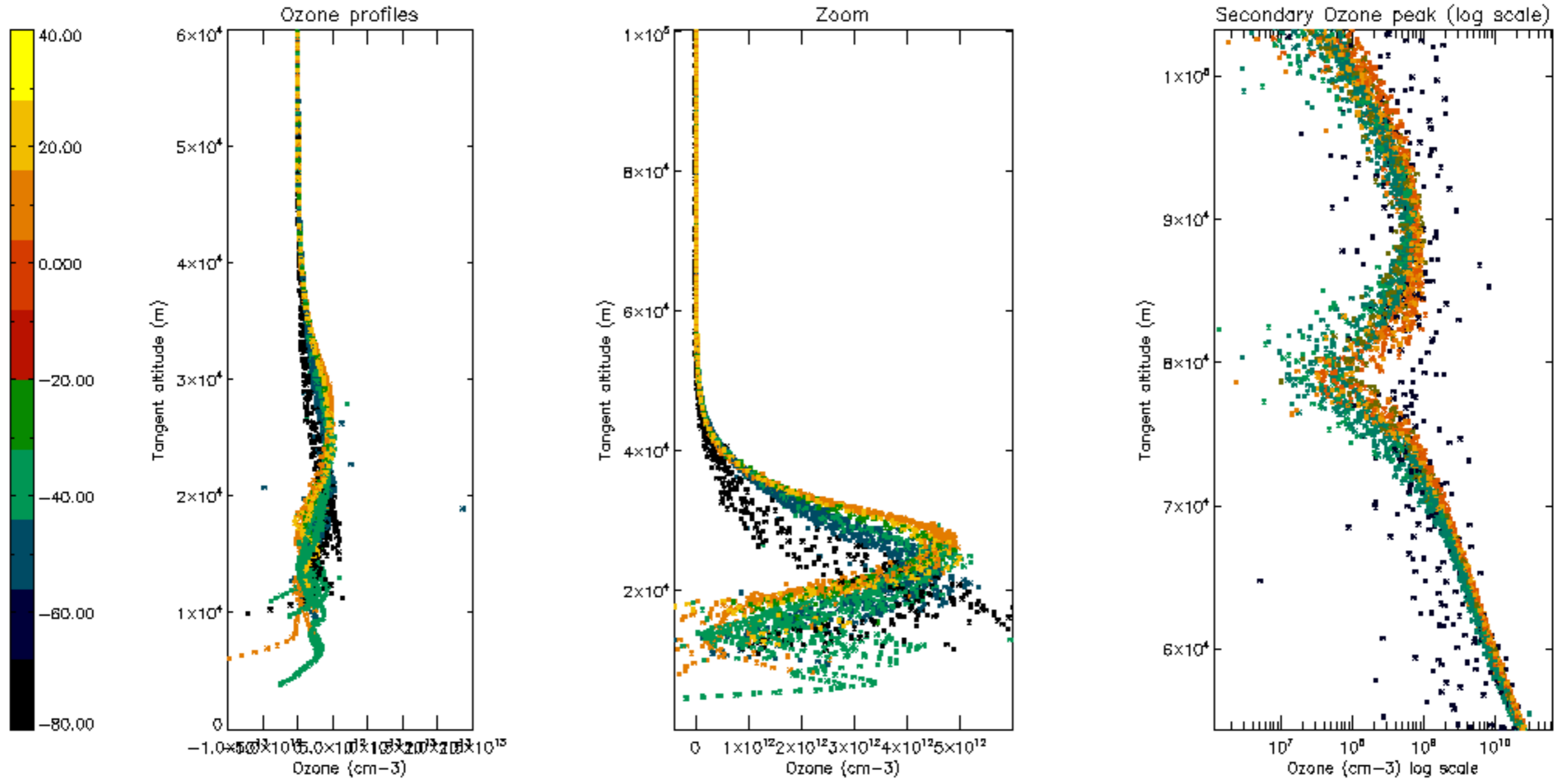


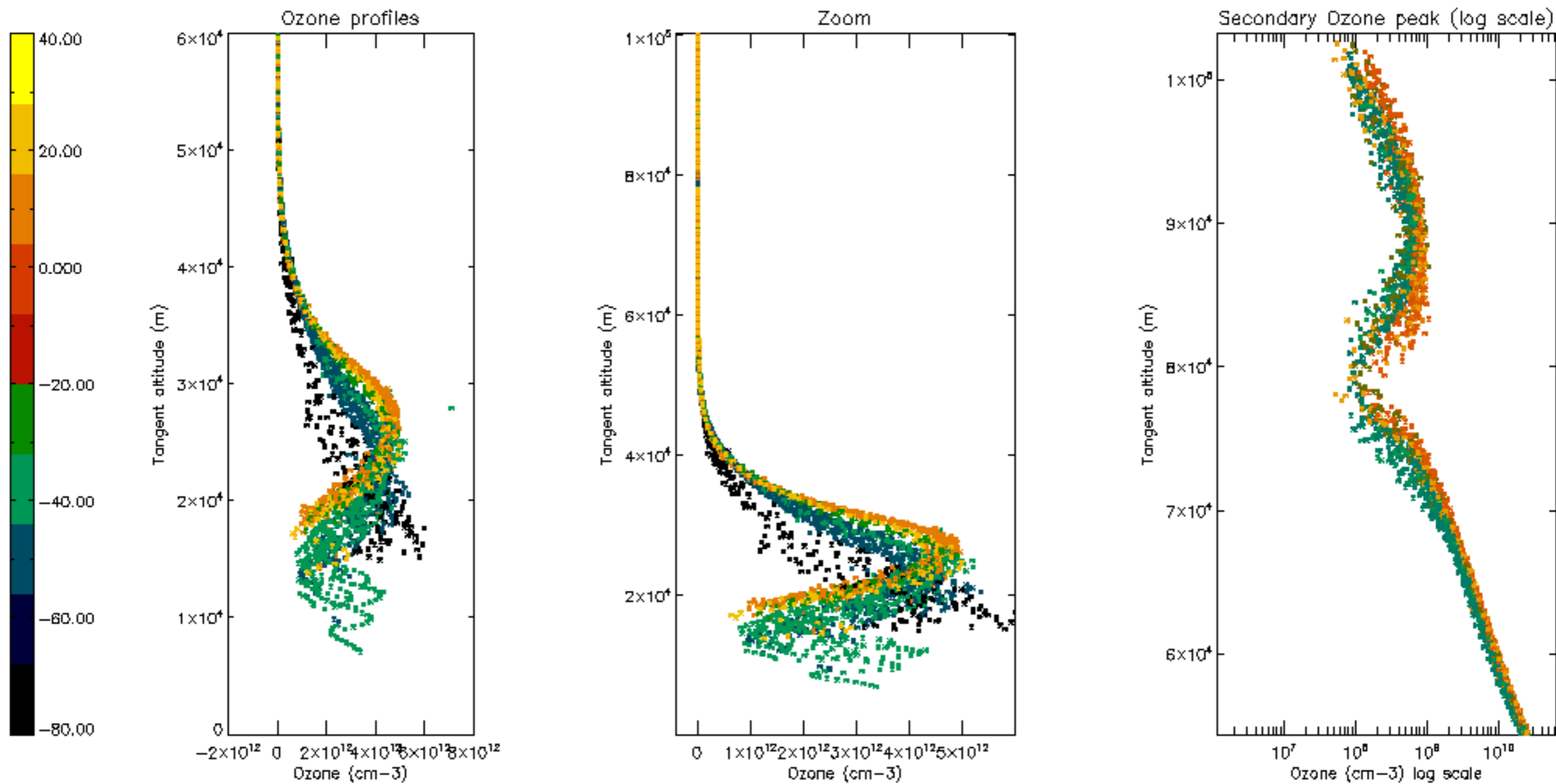
Percentage of star falling outside central band per profile

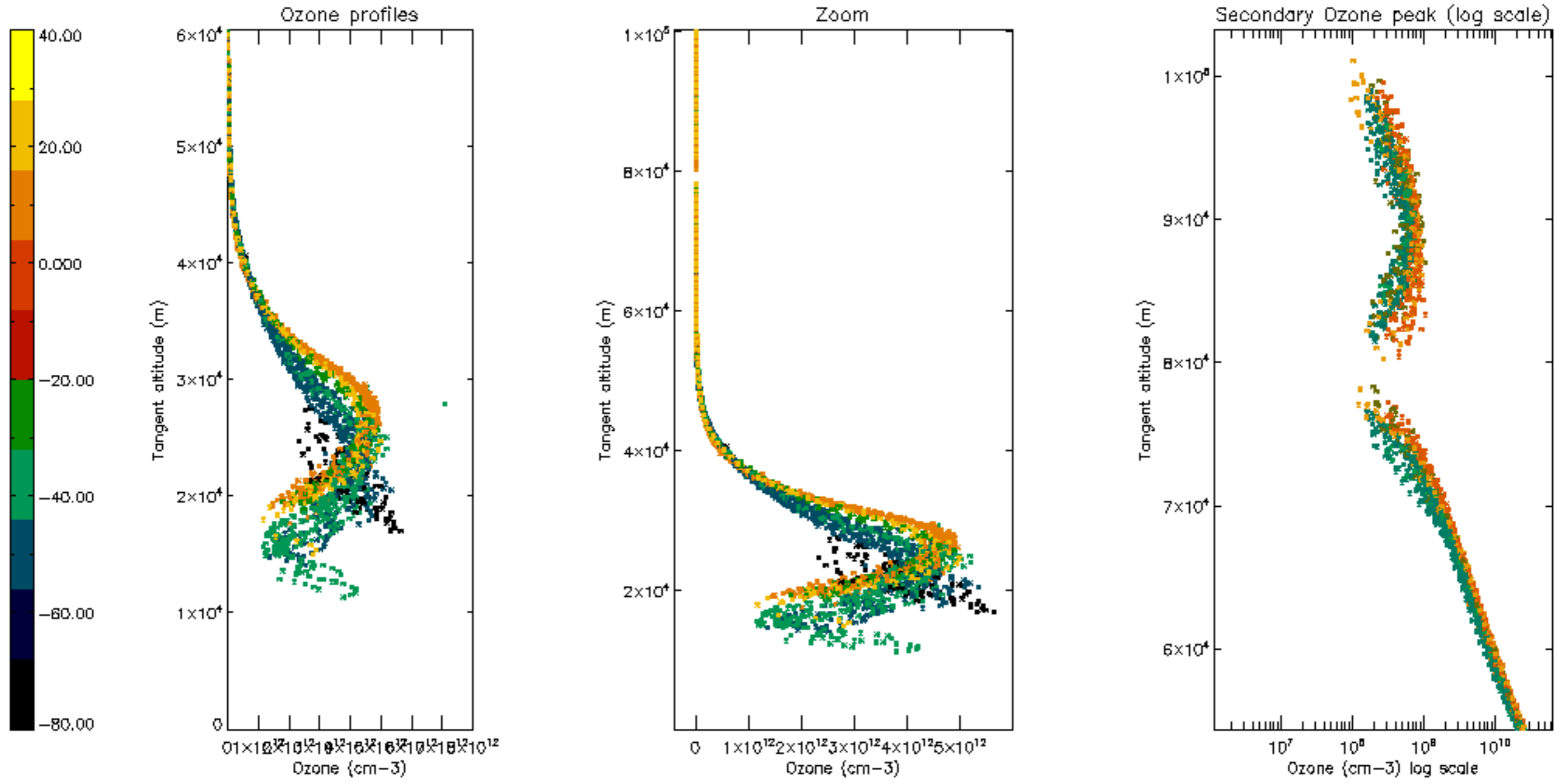


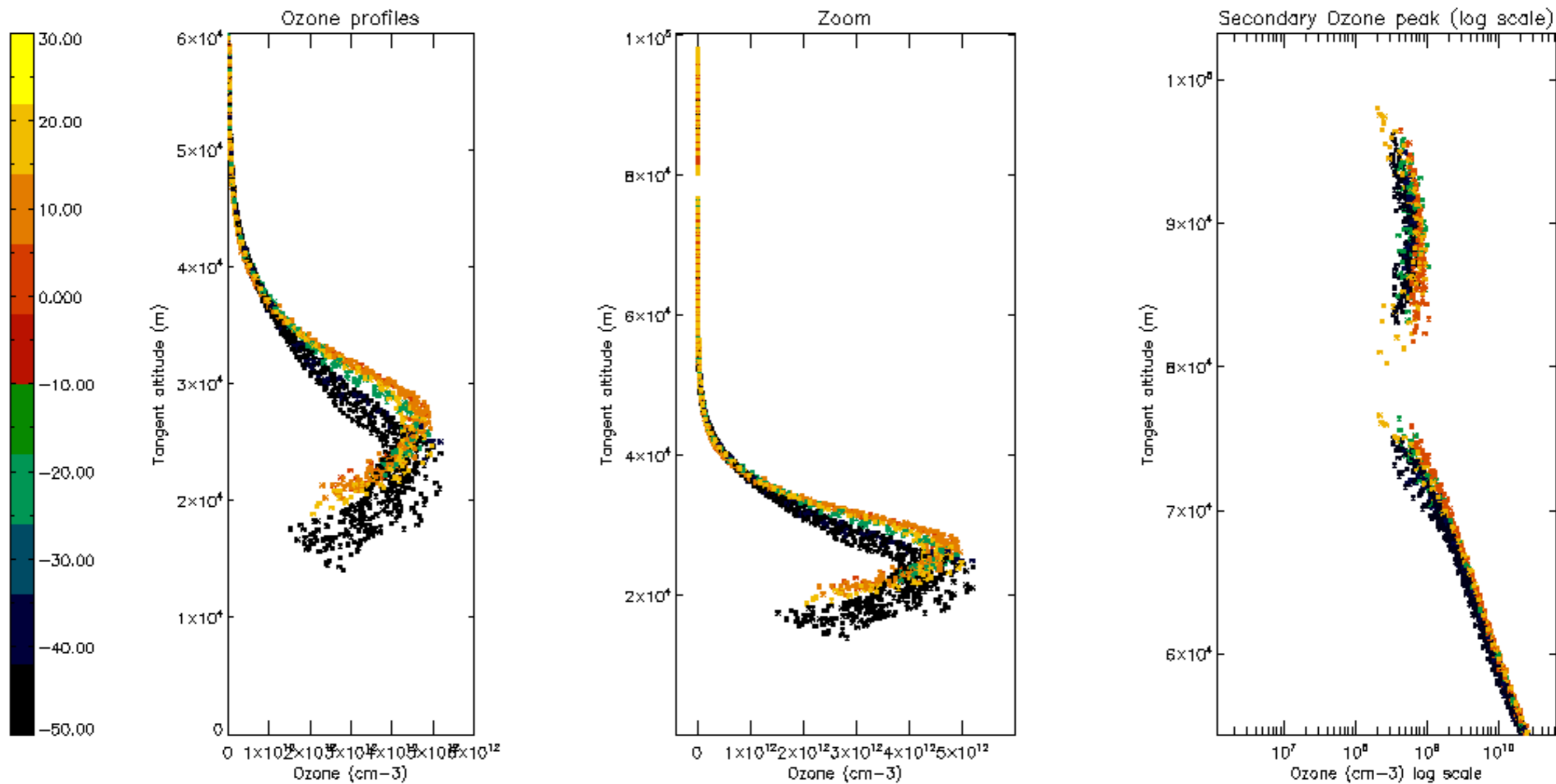
Percentage of saturation errors per profile

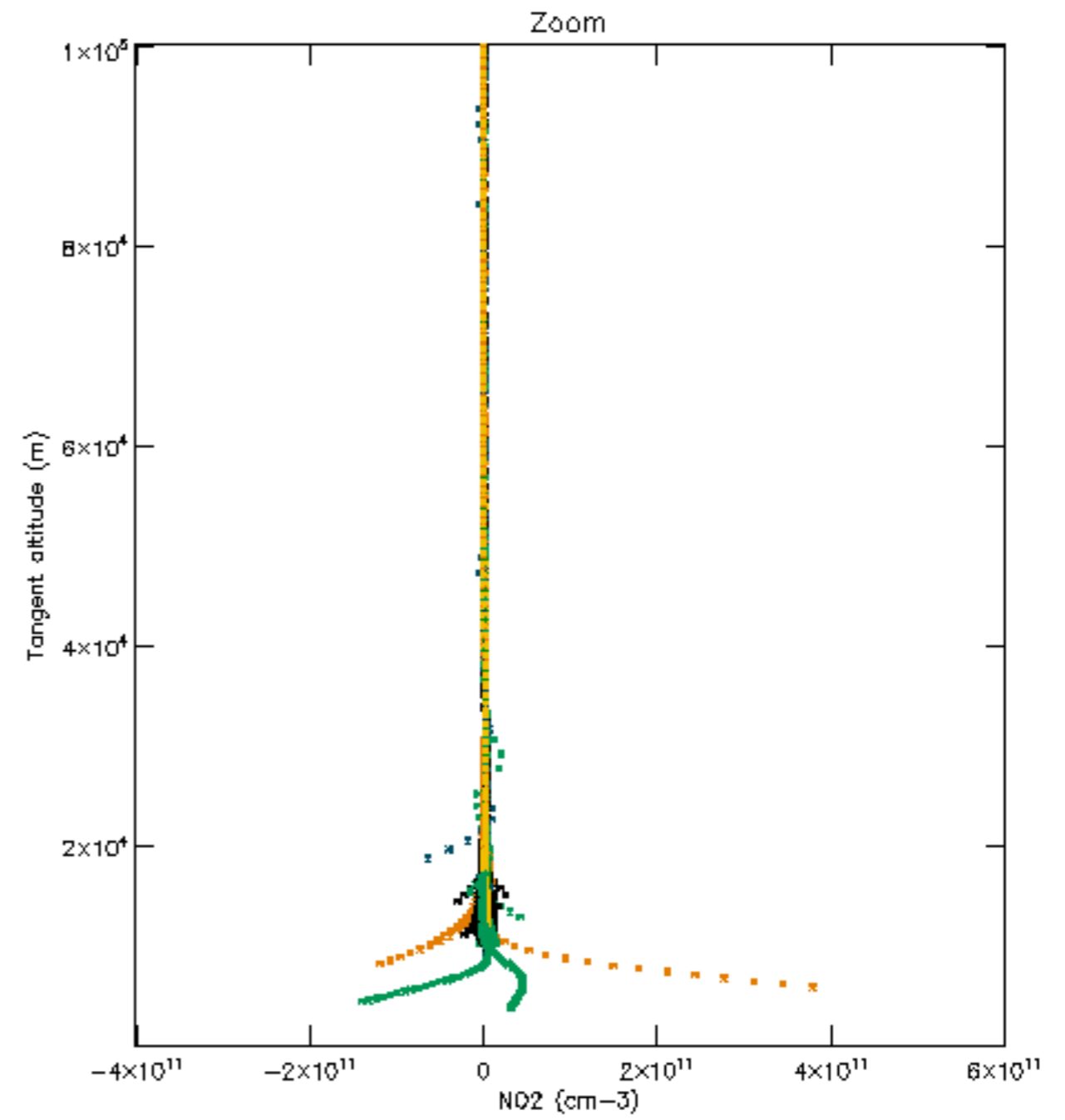
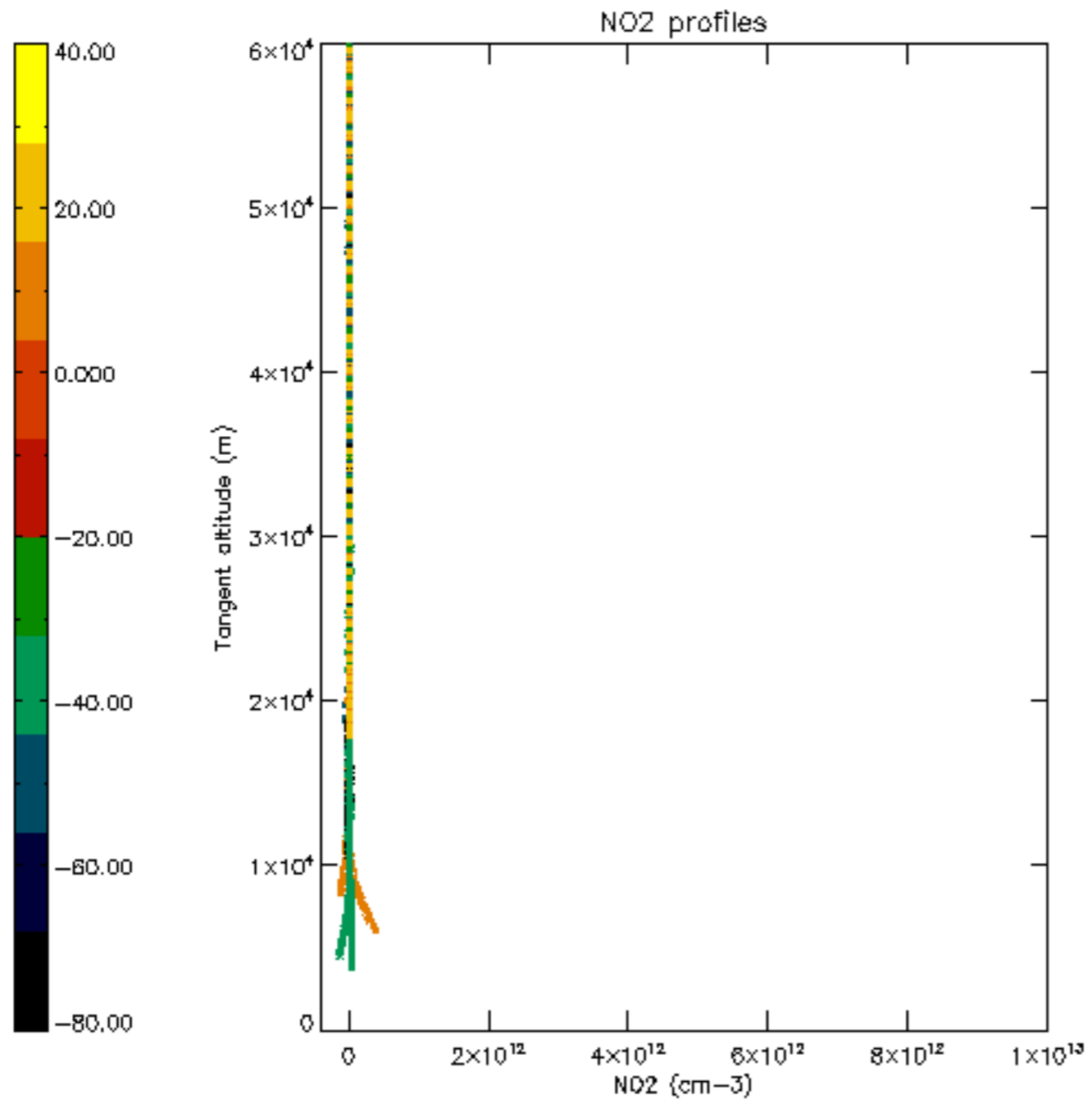


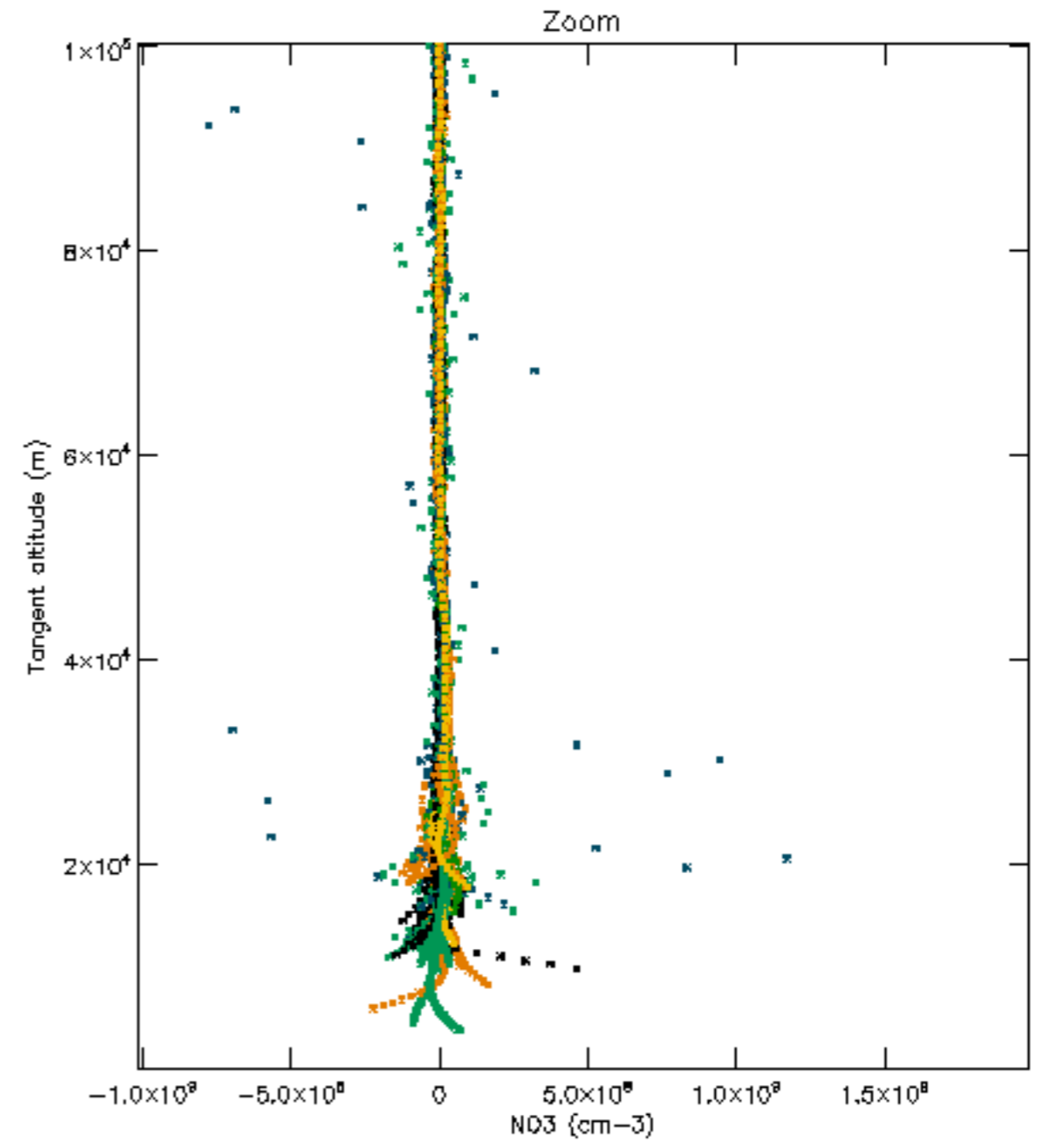
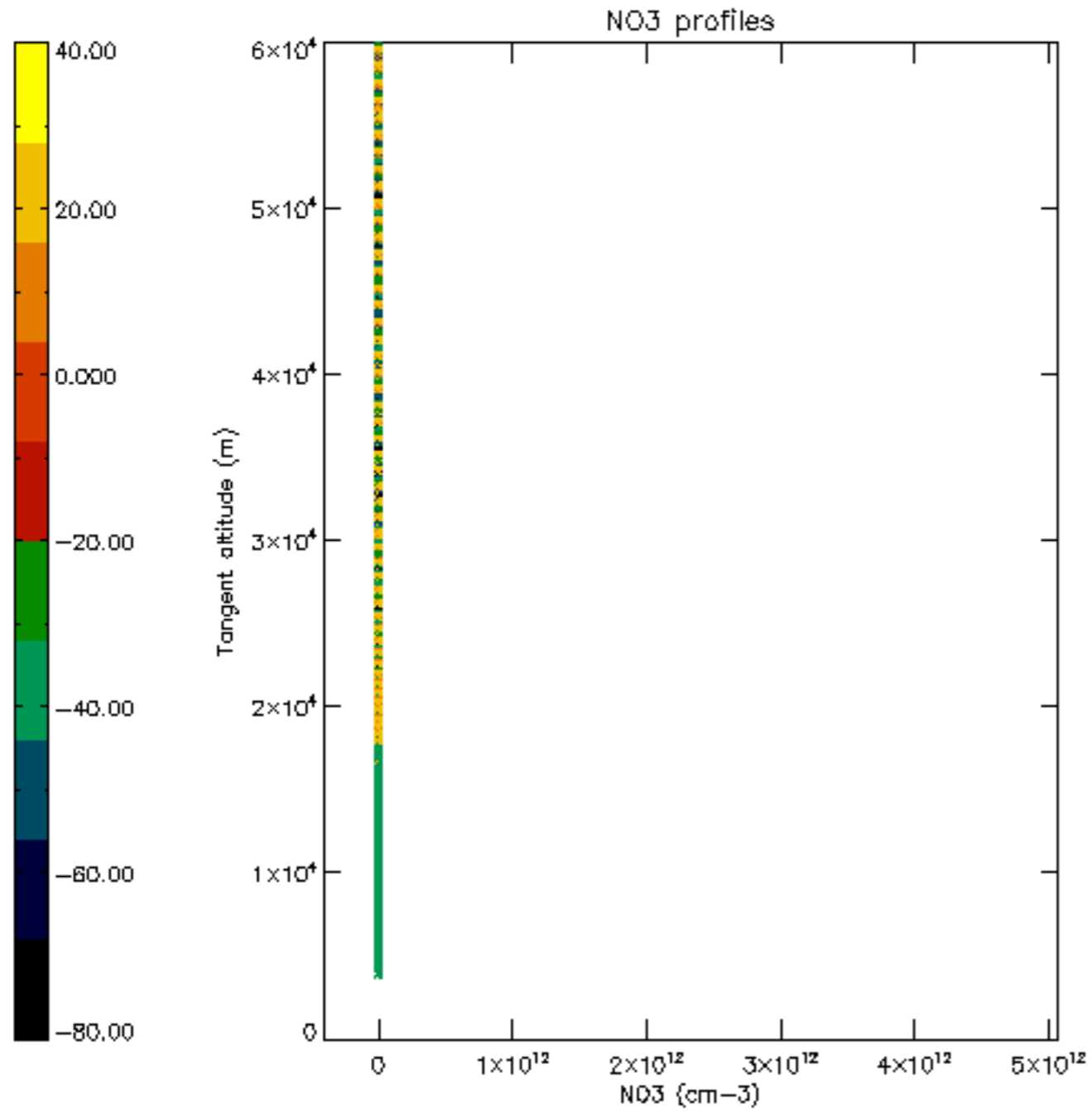


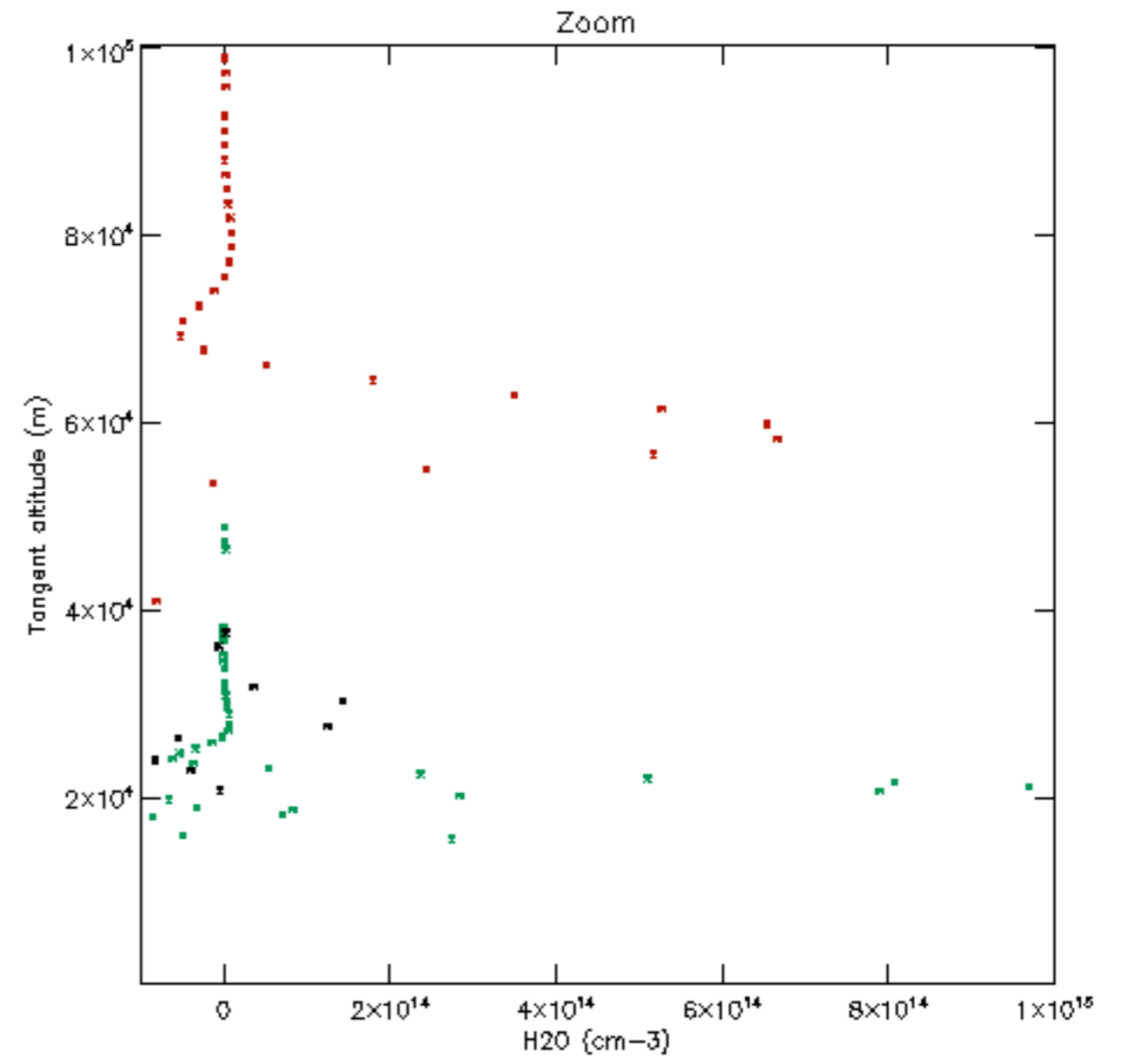
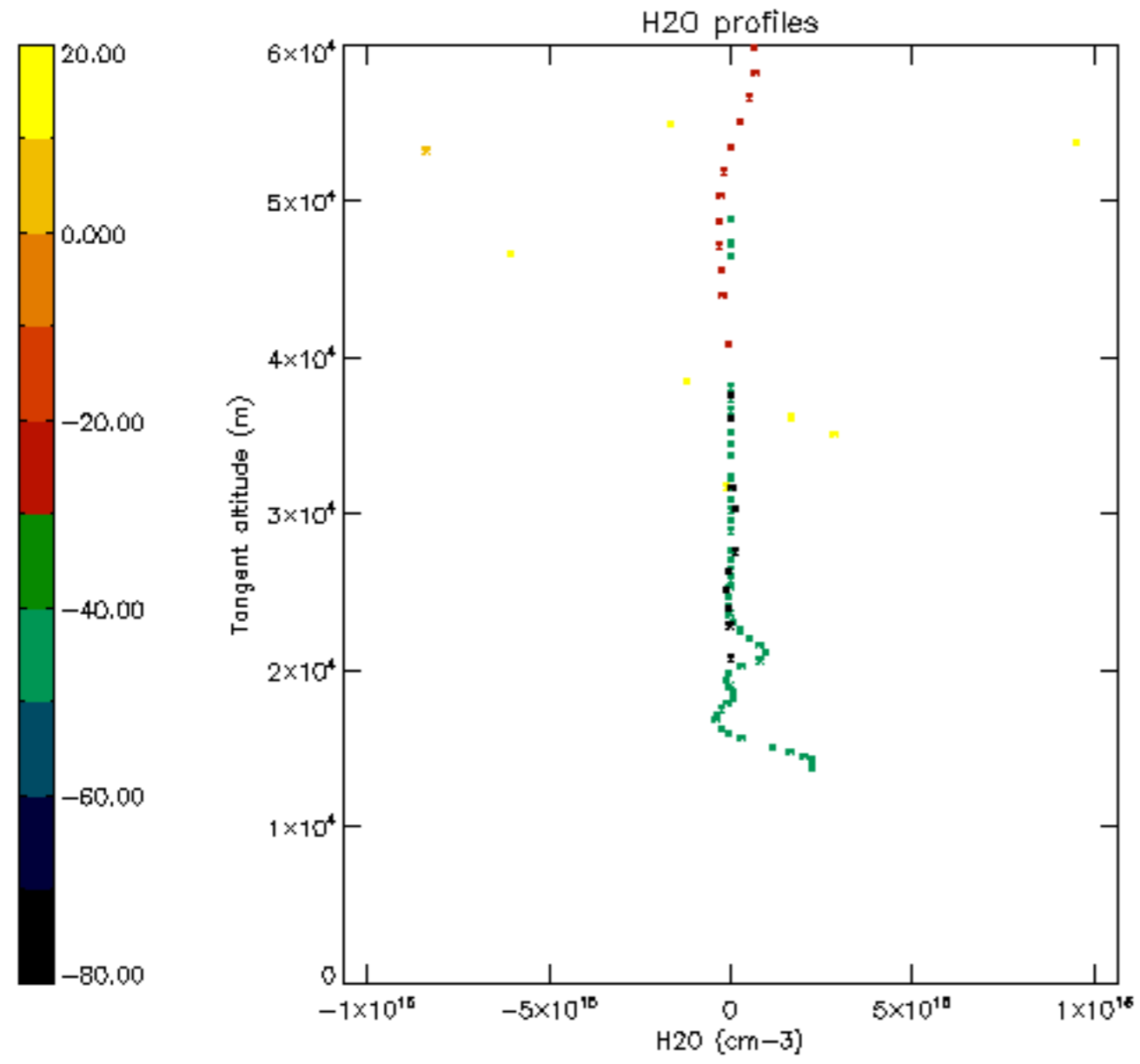


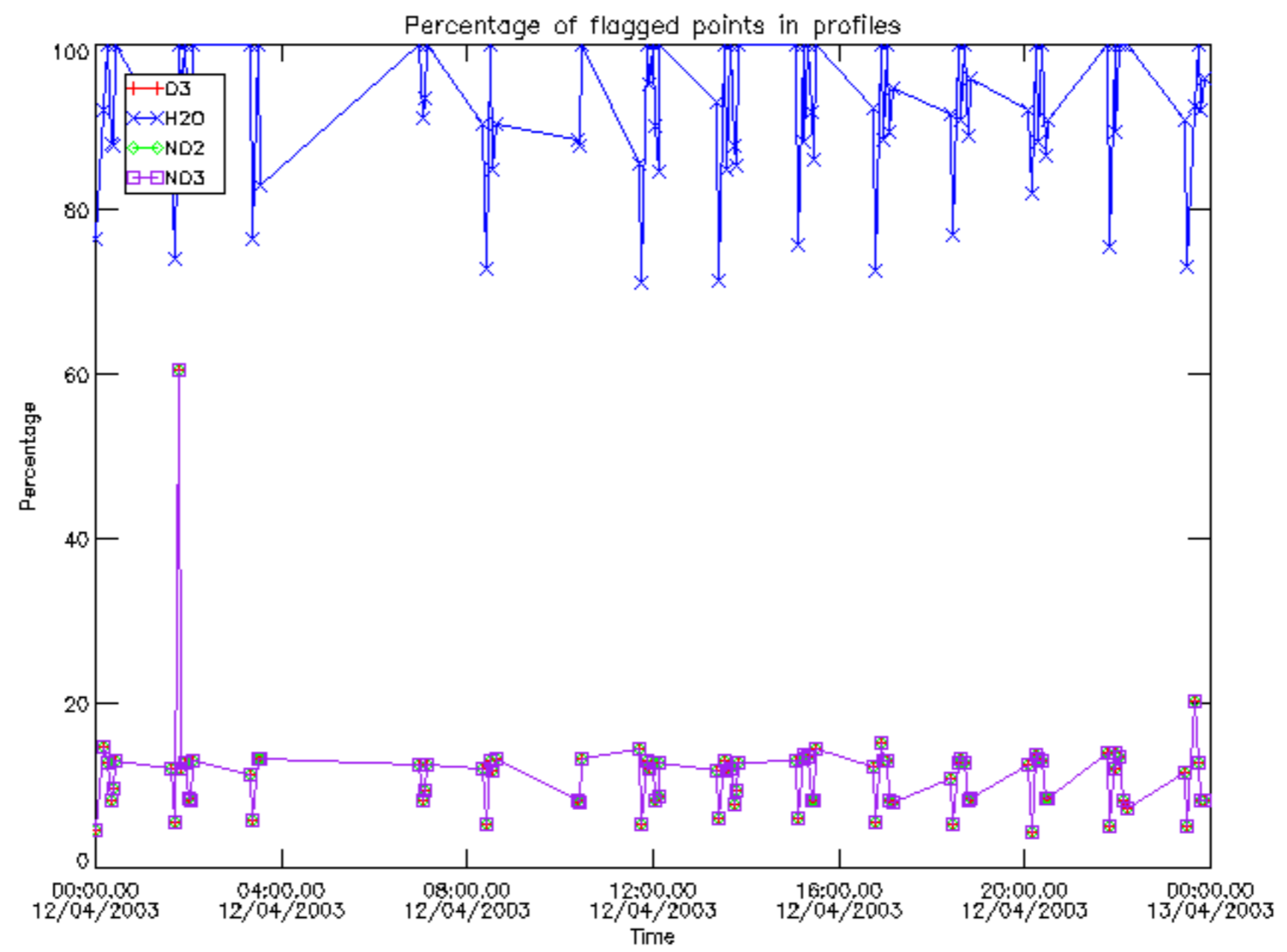




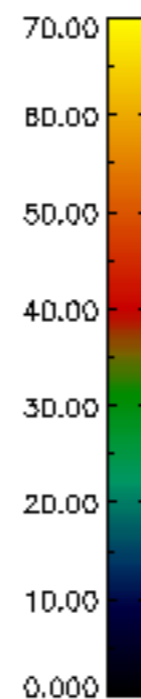
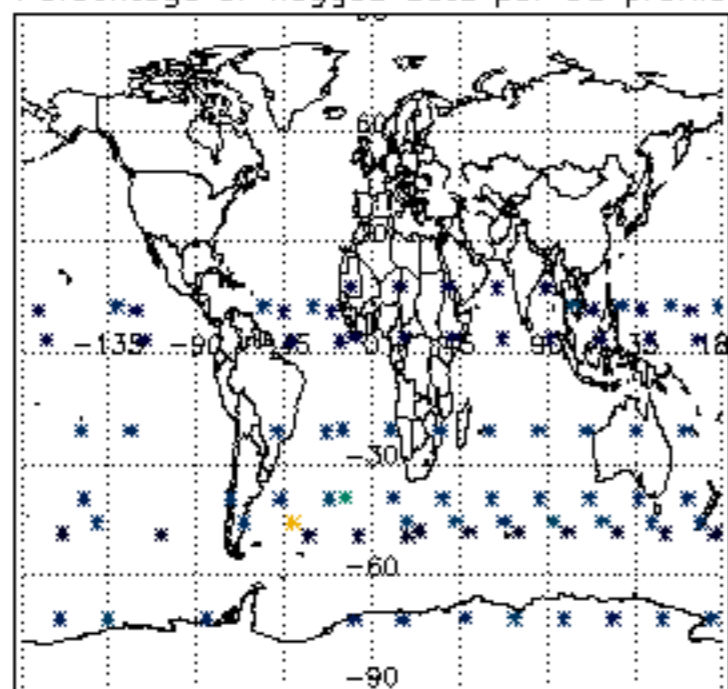




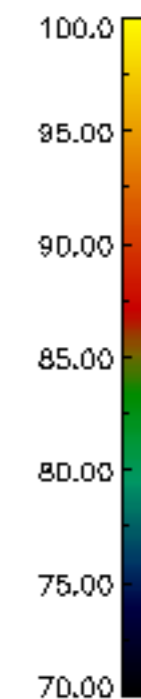
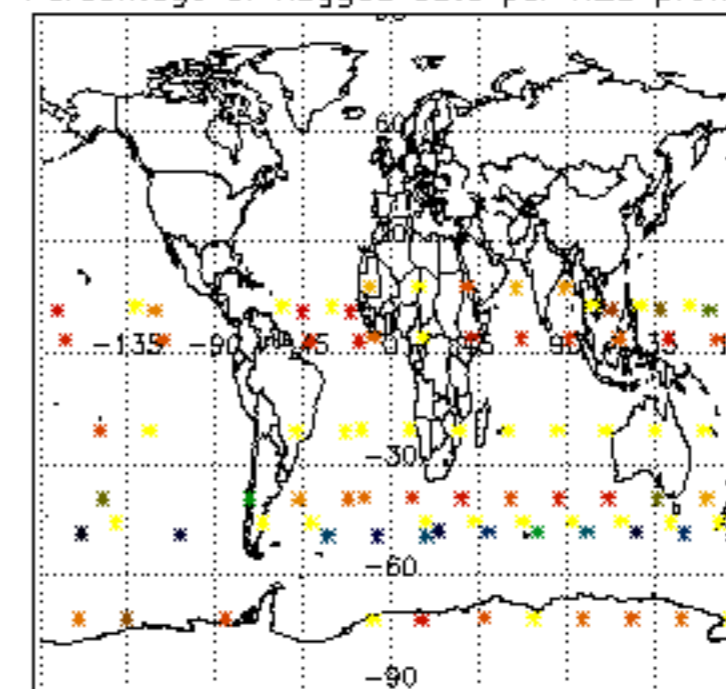




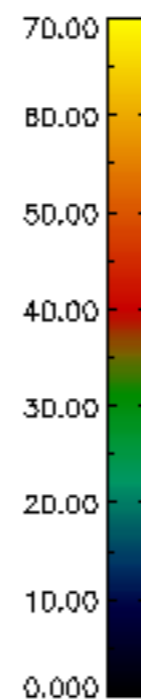
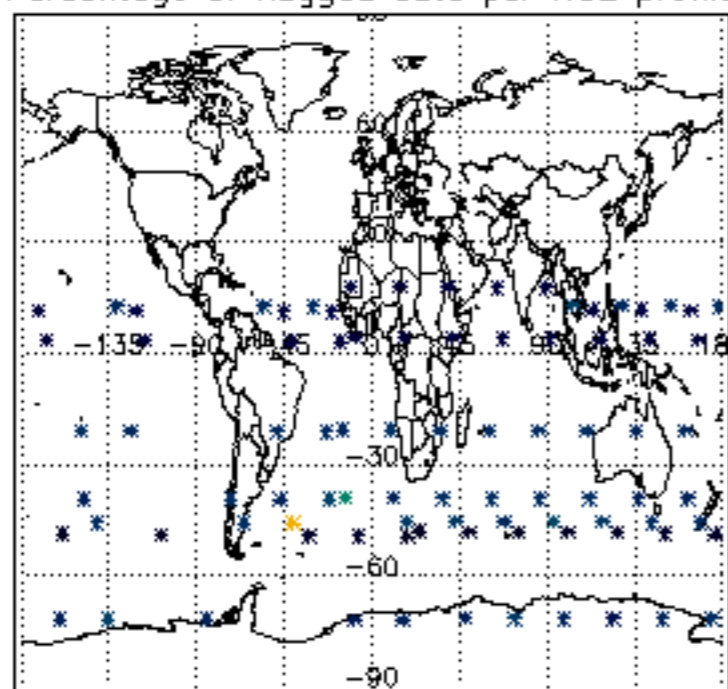
Percentage of flagged data per D3 profile



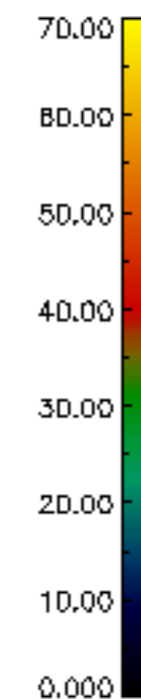
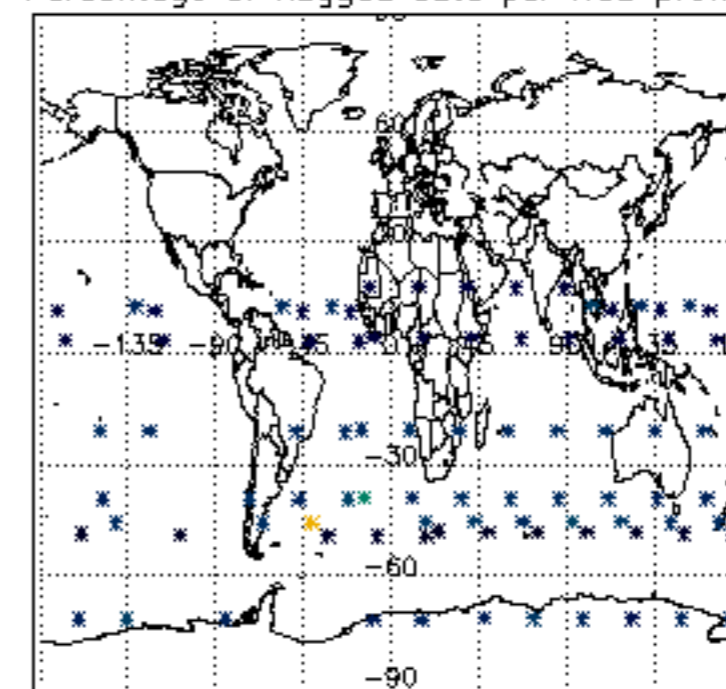
Percentage of flagged data per H2O profile

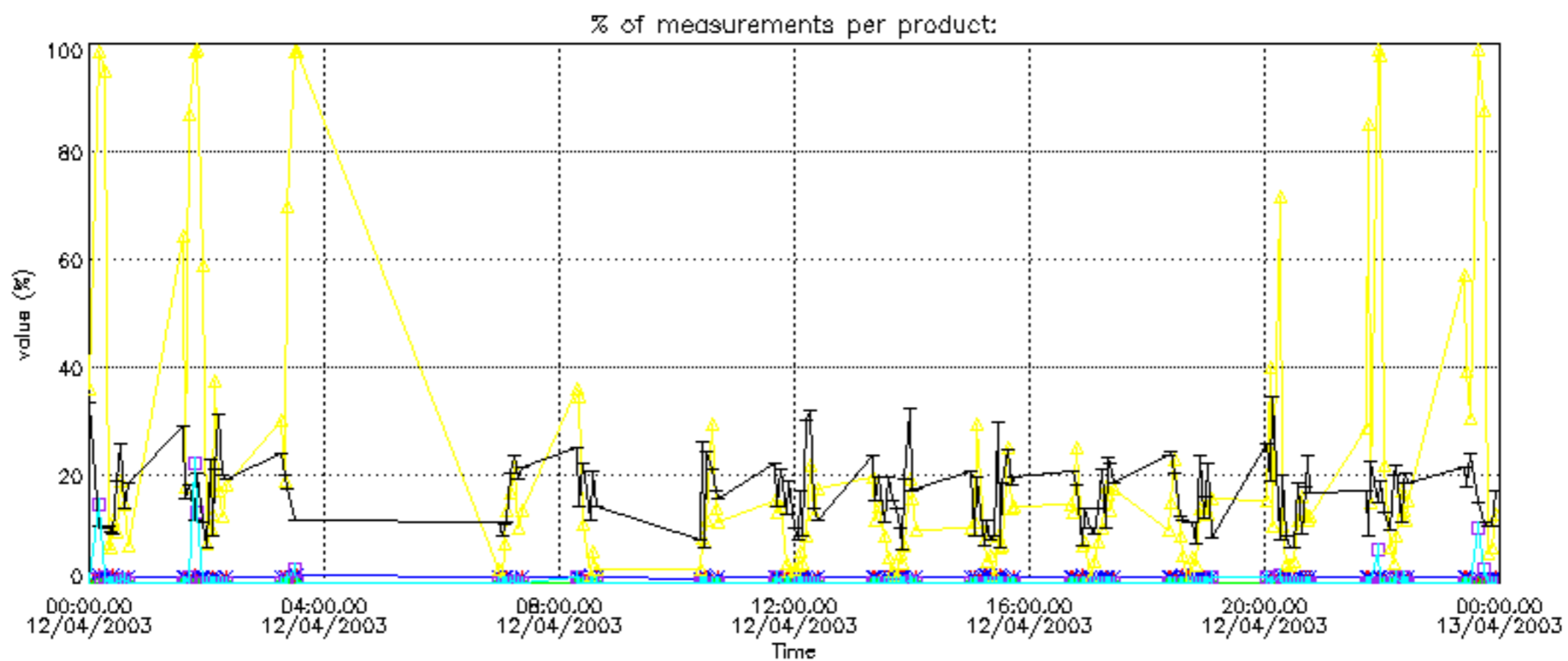


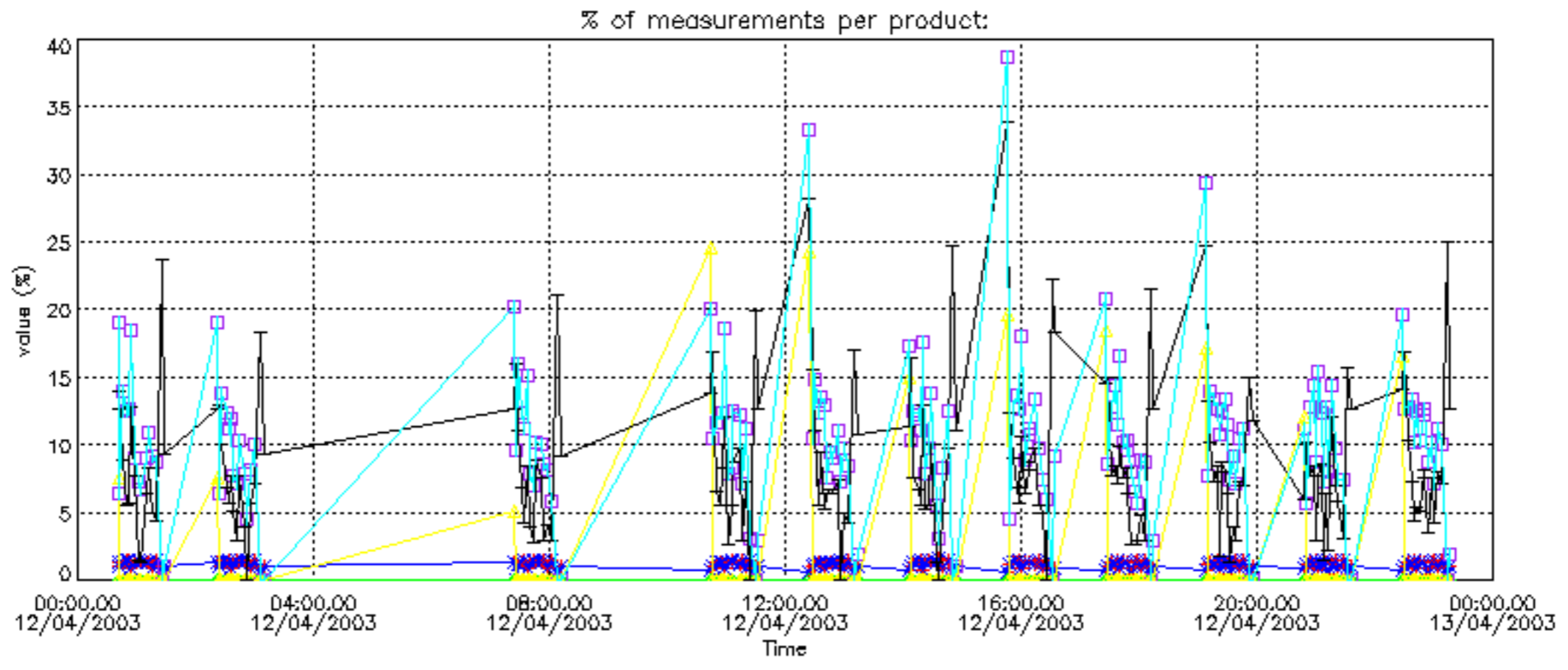
Percentage of flagged data per NO2 profile



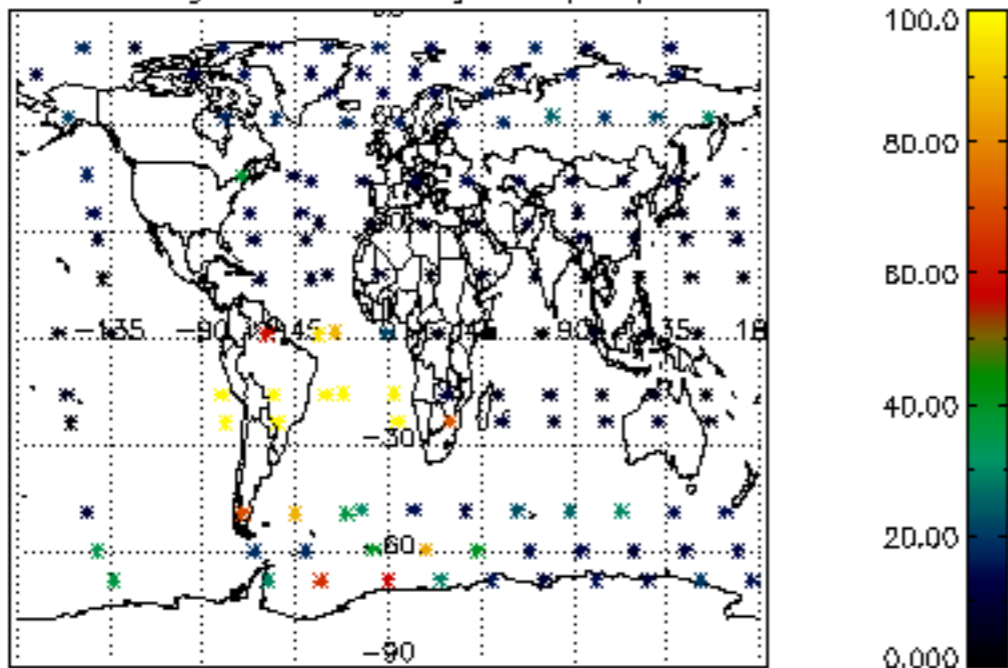
Percentage of flagged data per NO3 profile



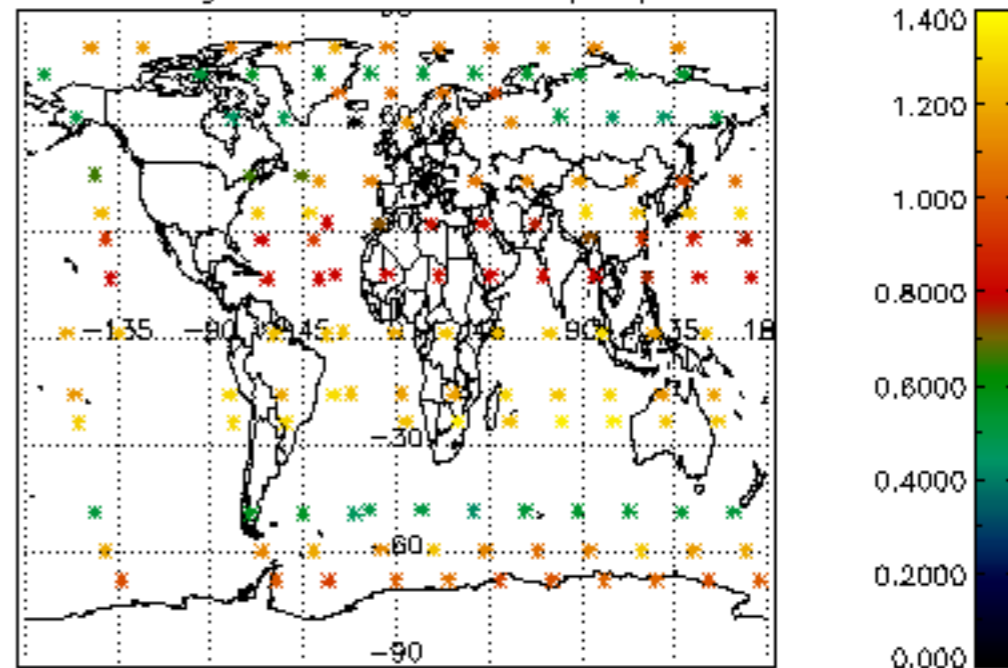




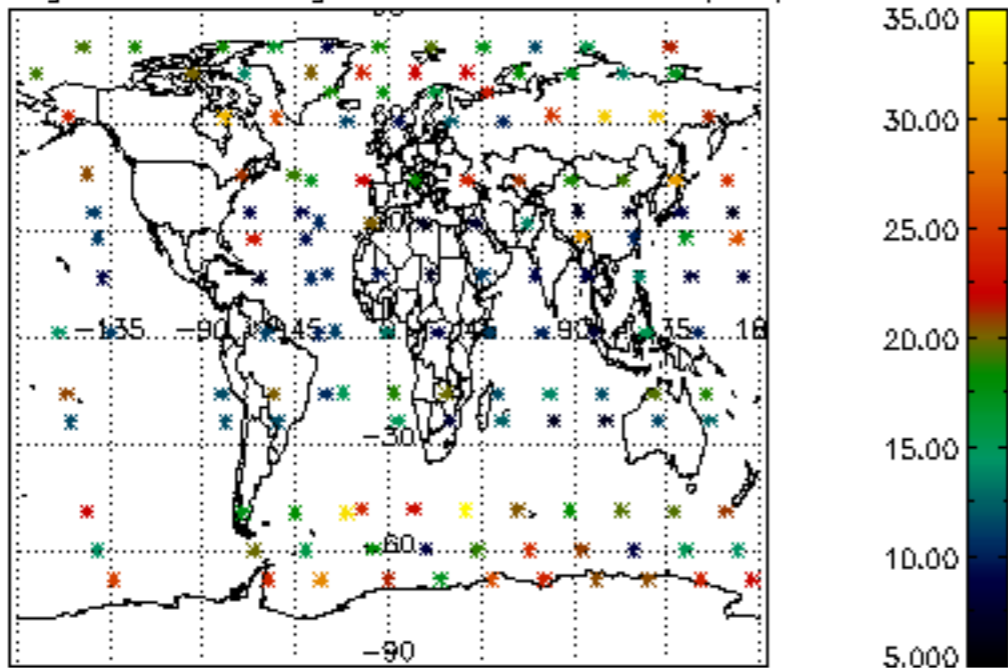
Percentage of cosmic ray hits per profile



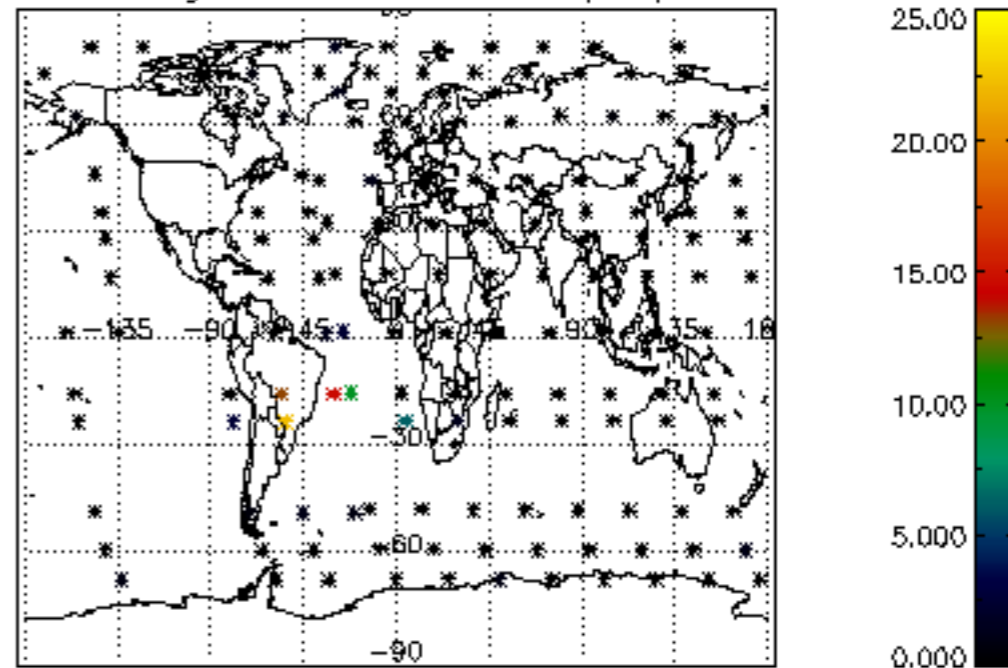
Percentage of datation errors per profile



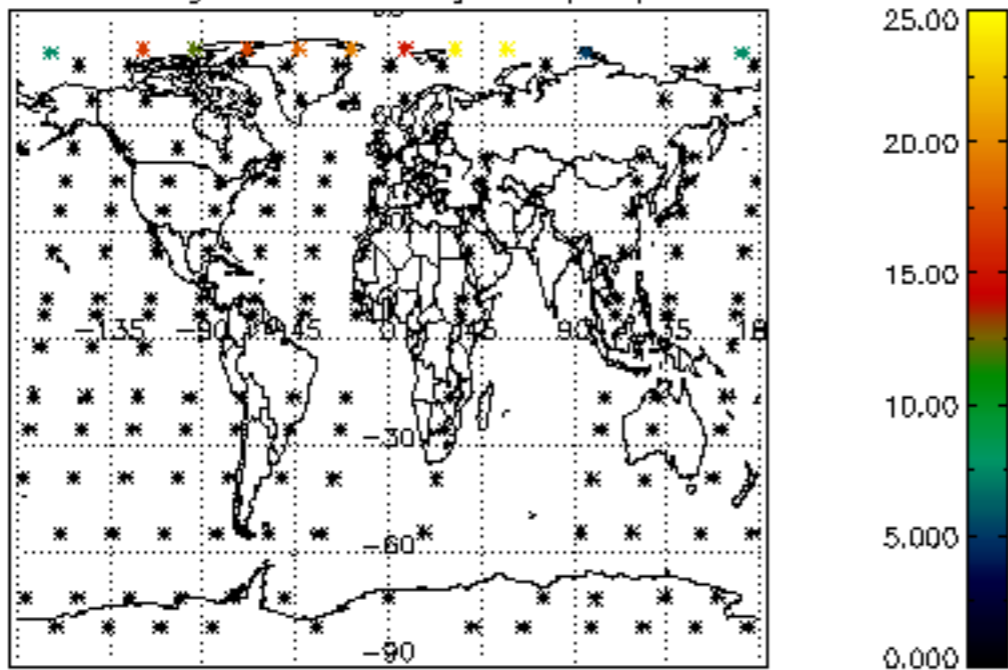
Percentage of star falling outside central band per profile



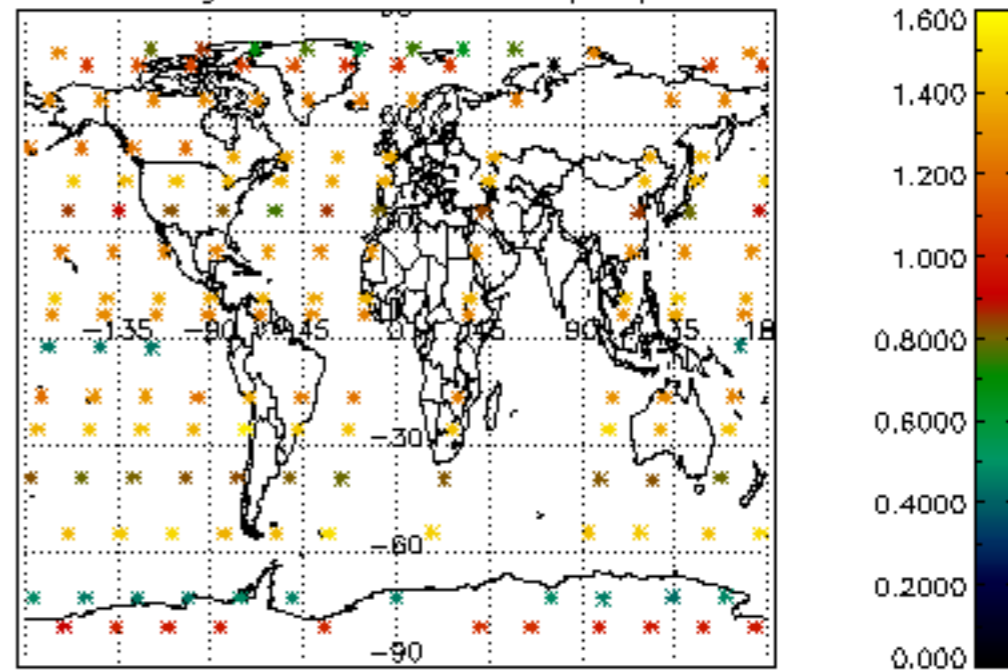
Percentage of saturation errors per profile



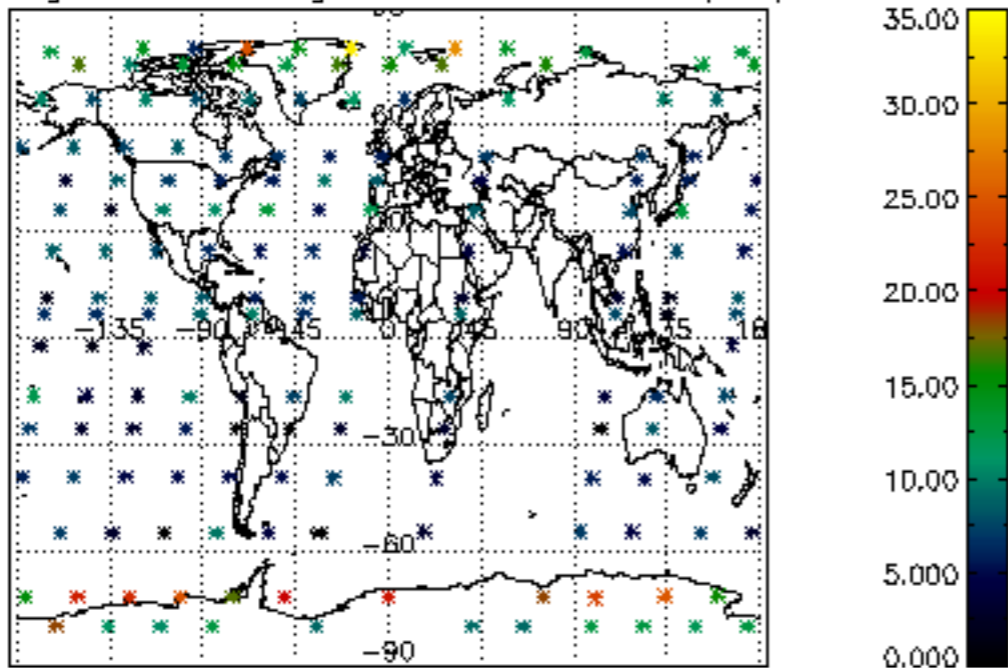
Percentage of cosmic ray hits per profile



Percentage of datation errors per profile



Percentage of star falling outside central band per profile



Percentage of saturation errors per profile

